

Table S2. List of the predicted tRNA genes in the classified virus genomes

Viral families are marked with '*' and genomes with '>'.

*Adenoviridae

- >U46933.1 Avian adenovirus CELO, complete genome
1-tRNA-Ala(tgc)c[39758,39832]
cgacagtgtagctcagccgtaagagcgtcggactgcactccggaggtcc
ccagatcgaaactgggtactgccga
- >AF289262.1 Porcine adenovirus 5, complete genome
1-tRNA-His(atg)c[20787,20870]
gtggcagaaggccatggatgtggccatgagtcttatggcctctgaagg
tagacaccaaggatcttaccttgctgccgacca
- >BK001452.1 TPA: Fowl adenovirus 1, complete genome
1-tRNA-Ala(tgc)c[39758,39832]
cgacagtgtagctcagccgtaagagcgtcggactgcactccggaggtcc
ccagatcgaaactgggtactgccga
- >BK000411.1 TPA: Porcine adenovirus 5, complete genome
1-tRNA-His(atg)c[20787,20870]
gtggcagaaggccatggatgtggccatgagtcttatggcctctgaagg
tagacaccaaggatcttaccttgctgccgacca
- >KC493646.1 Fowl adenovirus 5 strain 340, complete genome
1-tRNA-Leu(taa)c[41720,41794]
cggcggtagctcagctgtcagagcgtcggactaaaatccggaggacc
ccagatcaaaactgggtatcgccga
- >KF477312.1 Turkey adenovirus 4 isolate TNI1, complete genome
1-tRNA-Val(aac)c[39044,39118]
cggcggcatagctcaggtggcagagcgtcggactaacagttcggaggtcc
ccagatcgaaactgggtgcagtcga
- >KF477313.1 Turkey adenovirus 5 isolate 1277BT, complete genome
1-tRNA-Phe(aaa)c[39871,39945]
cggcggtagctcagccgtaagagcgtcgggtcaaaagtcggaggtcc
ccagatcgaaactgggtatcgccga

*Ascoviridae

- >DQ517337.1 Trichoplusia ni ascovirus 2c, complete genome
1-tRNA-Ile(gat)c[86581,86653]
agtccgttagctcagtggttagagcatcgtgctgataacacgagggtcgt
aggttcaaatcctacatggacta
1-2tRNA-Leu(taa)[126266,126347]
gtcaggtggccgagtggtctaaggcgccagatttaagatctggttcct
cgggagcgtgggttcgaacccacacctgaca
1-3tRNA-Ile(tat)c[162750,162822]
gcctcttagctcagtggttagagcatcggcttatacgggttgctgt

gagttcgattctcacaagaggta

>KJ755191.1 *Heliothis virescens* ascovirus 3f isolate LD135790, complete genome
 1-tRNA-Ile(tat)c[43866,43938]
 gtctcggtagcgcagtcggttagcgcacggtagcttatatcgccgtggtcgt
 gagttcgatcctcaccgagaca

>JX491653.1 *Heliothis virescens* ascovirus 3g, complete genome
 1-tRNA-Ile(tat)c[46219,46291]
 gtctcggtagcgcagttggttagcgcacggtagcttatatcgccggtcgt
 gagttcgatcctcaccgagaca

*Baculoviridae

>U59461.2 *Mamestra configurata* NPV-A strain 90/2, complete genome
 1-tRNA-Ile(tat)[17778,17852]
 ggtgacgctggtgtaatggttagcatccgtgactataatcgcgaggagg
 gcggttcgattccgccagttgctgc

>AF162221.1 *Xestia c-nigrum* granulovirus genome, complete sequence
 1-tRNA-Asp(gtc)c[60066,60137]
 tcctcggtagtatagtggtgagtagtgcgcctgtcacgaggagaccag
 ggttcgattccctgccgaggag

>L22858.1 *Autographa californica* nucleopolyhedrovirus clone C6, complete genome
 1-tRNA-Gln(ctg)[107991,108073]
 gtctcagtagctcaaggtagagcgtacgctctggatcgatagatcttg
 ctaaggttgtagttcaagtcgcctgagata

>AY349019.1 *Neodiprion lecontei* NPV, complete genome
 1-tRNA-Ile(aat)c[11456,11529]
 ggcccatagctcagttggt.agagcgtcgtgctaataacggaaggtcg
 aaggttcgatcctttcatgggcca

>DQ486030.3 *Antheraea pernyi* nucleopolyhedrovirus, complete genome
 1-tRNA-Lys(ttt)[95704,95789]
 ttctcagtagctcaacggttagagcgtagcacttttcacgcttagatg
 ttgctaaggttgcaagttcgaatctgcctgagata

>DQ813662.2 *Anticarsia gemmatilis* nucleopolyhedrovirus, complete genome
 1-tRNA-Thr(agt)c[28449,28532]
 gtctcagtagcttaatggttagagcgtggcgctagttatgtaaacaatgat
 gacaaggttgcgagttcaagcctgcctgagata

>EU255577.1 *Helicoverpa armigera* granulovirus, complete genome
 1-tRNA-Asp(gtc)c[57007,57078]
 tcctcggtagtatagtggtgagtagtgcgcctgtcacgaggagaccag
 ggttcgattcttgccgaggag

>JQ798165.1 *Mamestra brassicae* MNPV strain K1, complete genome
 1-tRNA-Ile(tat)[17401,17475]
 ggtgacgctggtgtaatggttagcatgagtgactataatcgcgacgatg
 gtggttcgattccgccagttgctgc

>KR815466.1 *Anticarsia gemmatilis* multicapsid nucleopolyhedrovirus isolate AgMNPV-37, complete genome

1-tRNA-Thr(agt)c[27782,27865]
gtctcagtagcttaatggtagagcgtggcgctagtattgtaaacatgat
gacaaggttgcgagttcaagcctcgcctgagata

*Dicistroviridae

>DQ288865.1 Homalodisca coagulata virus-1, complete genome

1-tRNA-Ala(cgc)[2402,2479]
cggacagctggttagtgtgtttgatatttcgcacaacatcaagatttg
ctcaggttcaaaccctgagctattga

*Fuselloviridae

>AY370762.1 Fusellovirus SSV2, complete genome

1-tRNA-Gly(ccc)[2557,2630]
ggggtctaggggtgtccccctaatgccggcctccaagccggtgatcc
cgggttcaaatcccggcgccgca

>EU030938.1 Sulfolobus spindle-shaped virus 4, complete genome

1-tRNA-Glu(ttc)[7486,7563]
gtgggggttttaggggtgtccccctaatcgggccttcgagcccggtg
accgggttcaaatcccggcgccgac

>EU030939.1 Sulfolobus spindle-shaped virus 5, complete genome

1-tRNA-Gln(ctg)c[7518,7593]
aacgggggtgtggggcggttacccccacagggtctggcccctgggacc
agggttcgaatccctgcccggtacc

>FJ870915.1 Sulfolobus spindle-shaped virus 6, complete genome

1-tRNA-Gln(ctg)c[3758,3833]
aacgggggtgtggggcggttccccccacagggtctggcccctgggacc
agggttcgaatccctgcccggtacc

>KY579375.1 Sulfolobus spindle-shaped virus 3 strain REY 15/4, complete genome

1-tRNA-Glu(ttc)[3397,3474]
gtgggggttttaggggtgtccccctaatcgggccttcgagcccggtg
accgggttcaaatcccggcgccgac

*Herpesviridae

>U97553.2 Murine herpesvirus 68 strain WUMS, complete genome

1-2tRNA-Gln(ctg)[487,562]
ggccagggtagctcaatcggtagagcagcggtcctggagtcgctggtt
ctcggttcaagcccagccctggtg
1-3tRNA-Cys(aca)[894,967]
gtcgggtagctcaaatggtagagtgaggccaacatagccagcagatc
tcggttcaaaccgagccctgacc
1-4tRNA-Met(cat)[1182,1255]
gtcgggtagctcaattggtagagcggcaggctcatcccctgcaggttct
cggttcaatcccgggtcccgcgc
1-5tRNA-Thr(agt)[1588,1659]
gccagggtagctcaattggtagagcatcaggctagtatcctgtcggttcc
ggttcaagtcgggcccctggtt
1-6tRNA-Trp(cca)[3675,3749]

tgccagcgtagctcaattgtagagcagcgccaccaagcctgcagggtc
tcggttcaagtccggcgctggcat
1-7tRNA-Arg(cct)[4946,5031]
ggccagggtagctcaattgtagagcggcagacaccacctacgtggtcta
gtctgtggatctcgggtcaagtcgagtcctggcca
1-8tRNA-Gly(gcc)[5384,5460]
caccagagtggctcacctgtagagcaccaggctgcccacctgttggt
ctcggttcaaatccgagctctggtgac

>AJ004801.1 Bovine herpesvirus type 1.1 complete genome

1-1tRNA-Pro(cgg)c[103131,103223]
cggcgcccgcgcgggctcggcgccccgggctcgggccccctgggcgccg
ggcgctcgggcgcgagggccgggctcgggccccgggcgccg
1-2tRNA-Pro(cgg)[134995,135087]
cggcgcccgcgcgggctcggcgccccgggctcgggccccctgggcgccg
ggcgctcgggcgcgagggccgggctcgggccccgggcgccg

>DQ149153.1 Cercopithecine herpesvirus 16 strain X313, complete genome

1-1tRNA-Val(gac)c[78214,78308]
tcgggtctggccgagctggagcgcttcgagggccctcgacgcgccctgcg
gcgcgagctcgagagcgaggcggttcgaccccgggcgcggc
1-2tRNA-Pro(cgg)[84794,84874]
gtgtccccggggccggcgcggtccggacgttctcggggacgtcgcggc
ggacccccgggcctcctcgggggagcggtg

>KJ668231.1 Falconid herpesvirus 1 strain S-18, complete genome

1-1tRNA-Arg(cct)[4508,4586]
tccctcgtagttcagtgtagaataccgcctcctcctcgggcgggaga
ccgaggttcgattcctcgacgaggaaacc
1-2tRNA-Arg(gcc)[6901,6992]
tcctcgtagtatagcggctagtagcccccgggccgacccggcatacaga
taccggccgcgggagaccggggttcgagtcgccgacgaggggt
1-3tRNA-Ala(cgc)[8015,8094]
tcctcgtagtttagagtagaacgcccacgtcttcgcgaggagaatgg
gagaccggggttcgagtcgccgacggggat
1-4tRNA-Asp(gtc)[8658,8730]
tcctcgtagtatagtggttagtattccgtctgtcgcacgggagaccgg
ggttcgattccccgacgaggagc
1-5tRNA-Leu(gag)[9452,9525]
gtccccgtttgtacattggtagtagtcccgtcgcgaggtgctgggattgcg
gggttcgagtcgccggcggggaca
1-6tRNA-Arg(tcg)[9685,9761]
tcctcgtagtatagtggttagtacaaccggttcgcgggcgccgggag
accgaggttcgattcctcggcgaggac
1-7tRNA-SeC(tca)[10069,10145]
tccccgttagtttagtggtataacaccatctcaccttggtagacgggag
accggggttcgattccccgacggggac

tctcggtagtacaacgggtactacgcccgtatatatagagtaaacgg
gagatcgggggttcgactccccgccgaggaa

1-10tRNA-Asp(gtc)[11730,11800]

tcctcgttagtatagtggtagtatgcccgctctgtcgcacgggagaccggg
gttcgattccccgacgaggag

1-11tRNA-Asp(gtc)c[139353,139424]

tcctcgtagtatagtggttaataatccccgtttgtcgacgggagaccgg
ggttcgaatccccgacgaggag

1-12tRNA-Gly(gcc)c[140378,140453]

ccctcgctagtatagtggttattacgctcggcgggtgcctaggccgagaga
ccgggggttcgatccccggcgaggga

1-13tRNA-Ser(gct)c[140864,140946]

atcctcgttagtacagcggtagtacgccaaccaatagctatctgggtt
ggaaaccgggggttcaactccccgacgaggatac

1-14tRNA-Ser(gga)c[141574,141647]

tccccgttagtacagtggcagtacgccgtccgtggagcggatggacaacc
ggggttcgattccccgacggggca

1-15tRNA-Thr(ggt)c[142283,142365]

tgctcgtacgaggggttagtatgcccgatggtatatgtgtcacgc
gggagaccgggggttcgactccccggcgaggcgt

1-16tRNA-Asn(gtt)c[142502,142584]

gtcctcgtagtacagcggtagtatacgcaattgactgtttgtcaggta
gcgagagcgggggttcgactccccggcggggatt

1-17tRNA-Ser(gct)c[142745,142824]

ccctcattagtacagcggtagtacacccggacgctccacggacacacgg
gagagcggggttcgactccccgatgagggc

1-18tRNA-Arg(ccg)c[143382,143473]

tctctgtagtatagcggctagtagcggcgccgacccggcatacaga
taccggccgcgggagaccgggggttcgagtcacccgacgagggt

1-19tRNA-Arg(cct)c[145788,145866]

tccctcgtagttcagtggtagaatacccgctcctctccgggcgggaga
ccgaggttcgattcctcgacgaggaaacc

>KT594769.1 Macropodid herpesvirus 1 isolate MaHV1.3076/08, complete genome

1-1tRNA-His(gtg)c[71838,71918]

ccggggggtagacgatggtggtctccgcattgtgataagtggggggatt
cgaatttcaaggatcttatctgctctcgaa

>KX589235.1 Columbid alphaherpesvirus 1 strain HLJ, complete genome

1-tRNA-Arg(cct)[4508,4586]

tccctcgtagttcagtggtagaataccgcctcctctccgggcgggaga
ccgaggttcgattcctcgacgaggaaacc

1-2tRNA-Arg(ccg)[6901,6992]

tctcgttagtatagcggctagtacgcccgcggccgacccggcatacaga
taccggccgcgggagaccgggggttcgagtccccgacgagggt

1-3tRNA-Ala(cgc)[8016,8095]
tcctcgtagtttagaggtagaacgcccacgtcttcgcgaggagaatgg
gagaccggggttcgagtcacccgacggggat
1-4tRNA-Asp(gtc)[8659,8731]
tcctcgtagtatagtggttagtattcccgtctgtcgcacgggagaccgg
ggttcgattccccgacaggagc
1-5tRNA-Leu(gag)[9452,9525]
gtccccgtttgtacattggtagtactcccgtcgcaggtgctgggattgcg
gggttcgagtcacccggcggggaca
1-6tRNA-Arg(tcg)[9687,9763]
tcctcgtagtatagtggtagtacaaccggttcgcgcggcgccggggag
accgaggttcgattcctcggcaggac
1-7tRNA-SeC(tca)[10071,10147]
tccccgttagtttagtggtataacacccatctcaccttggtagacgggag
accggggttcgattccccgacggggac
1-9tRNA-Tyr(ata)[11453,11534]
tcctcgtagtacaacggttactacgcccgtatatatatagagtaaac
gggagatcggggttcgactccccgccaggaa
1-10tRNA-Asp(gtc)[11736,11806]
tcctcgtagtatagtggttagtatgccgtctgtcgcacgggagaccggg
gttcgattccccgacaggag
1-11tRNA-Asp(gtc)c[139527,139598]
tcctcgtagtatagtggttaatatccccgtttgtcgcacgggagaccgg
ggttcgaatccccgacaggag
1-12tRNA-Gly(gcc)c[140552,140627]
ccctcgtagtatagtggttattacgctcggcggtagcctaggccgagaga
ccggggttcgatccccggcgaggga
1-13tRNA-Ser(gct)c[141038,141120]
atcctcgtagtacagcggtagtacccaaccaatagctatctgggtt
ggaaaccggggttcaactccccgacaggatac
1-14tRNA-Ser(gga)c[141749,141822]
tccccgttagtacagtggcagtacgccgtccgtggagcggatggacaacc
ggggctcgattccccgacggggca
1-15tRNA-Thr(ggt)c[142457,142539]
tgccctgtagtacagggttagtatgccgtatggtatatgtgtcacgc
gggagaccggggttcgactccccggcgaggcgt
1-17tRNA-Ser(gct)c[142918,142997]
ccctcattagtacagcggtagtacacccggacgctccacggacacacgg
gagagcggggttcgactccccgatgaggc
1-18tRNA-Arg(ccg)c[143555,143646]
tcctcgtagtatagcggctagtagccccgcggccgacccggcatacaga
taccggccgcgggagaccggggttcgagtcacccgacagggt
1-19tRNA-Arg(cct)c[145961,146039]
tcctcgtagttcagtggtagaataccgcctcctctccggcgggaga

ccgagggttcgattcctcgacgaggaacc

***Inoviridae**

- >JN402401.1 Uncultured phage WW–nAnB, complete genome
1–tRNA–Ser(act)[1578,1646]
gcgggggtggtgcaacgtacgacgccagtctactgaaactggaactgctgg
ttcgaatccagatcccgca
- >KJ003982.1 Uncultured phage WW–nAnB strain 3, complete genome
1–tRNA–Gln(ctg)[1837,1905]
gcgggggtggtgcaacggtacgacgtcgctctgaacgcgaaactgtagg
ttcgaatcctaaccgca
- >KJ003981.1 Uncultured phage WW–nAnB strain 2, complete genome
1–tRNA–Gln(ctg)[1837,1910]
ggcggggtagtgaatggtcgcatgtcactctctgaagtgagctgctg
gttcgaatccagaccccgcaacca

***Iridoviridae**

- >AY380826.1 Lymphocystis disease virus – isolate China, complete genome
1–tRNA–Leu(taa)c[169350,169425]
ataatttctagttgagacatgaataatttttttaaaaaataaacaat
tagaagttcaattttttaattctc
- >AY521625.1 Singapore grouper iridovirus, complete genome
1–tRNA–Ile(tat)c[115610,115682]
gctccagtagcgcaatcggcagcgctgtactataatccaaggtgt
gagttcgatcctcacctggagca
- >DQ643392.1 Aedes taeniorhynchus iridescent virus, complete genome
1–tRNA–Tyr(ata)c[3354,3443]
ctctctataggggaaggagcccttgagcctatcgccccatagatca
atttctggaattgtgtccaagaggccatatgagagggg
- >KR139659.1 Scale drop disease virus isolate C4575, partial genome
1–tRNA–Ile(tat)[60628,60703]
tgctctagtggcgcagttaggtagcgcgagtgctataacactgaggtc
gtgagttcgatcctcacctagagcat

***Lipothrrixviridae**

- >AJ854042.1 Acidianus filamentous virus 2, partial genome
1–tRNA–Lys(ctt)c[17151,17237]
gggctcgtagcttagccaggtagagcaacgggctcttaacctaggagat
accgtaggtcccgggttcgaatccggcgagccccgc

***Luteoviridae**

- >KU315178.1 Pepo aphid–borne yellows virus isolate RSA BB Marrow, complete genome
1–tRNA–Arg(gcg)c[4996,5082]
actctcctgtctgaaccaggtacgagcacttctgcaaggagtgttaa
ggctctgtcttgaccgggttcagccagtgaggagt

***Marseilleviridae**

- >AP017398.1 Tokyovirus A1 DNA, nearly complete genome
1–tRNA–His(gtg)[5265,5337]

gtggatataacttaataggtaaagtgacaatttgtgaagtgtaaataatg
ggttcgattcccattattcaccc
1-2tRNA-Leu(taa)[5341,5424]
gtatcgtttggcgggaattggtagacgcgatgggcttaaacctattcca
tgaggagtattggttcgattccaataacggttta

*Mimiviridae

>HQ336222.2 Acanthamoeba polyphaga mimivirus, complete genome

1-1tRNA-Leu(taa)c[57234,57316]
gcaaaggtggcggagtggtctaacgcggtagacttaagatctactatctt
ttgatgtcgtgggttcgaatcccaccctttgca
1-2tRNA-His(gtg)[352157,352227]
gatccgtagtttagtggtagaactactgtttgtgggacggctgacacag
gttcgattcctgtacgggtca
1-3tRNA-Cys(gca)[352275,352346]
ggatcgtagctcaatggtagagcgctgcctgcagagcgataggttatc
agttcaattctgatacgtcct
1-4tRNA-Trp(cca)[1129299,1129369]
gacctgtagtttaatggtaaacggtagcctccagagtattgatactg
gttcgattccggtataggtcc
1-5tRNA-Leu(caa)[1139240,1139322]
gcaaaggtggcggagtggtctaacgcggtagactcaagatctactatctt
ttgatgtcgtgggttcgaatcccaccctttgca
1-6tRNA-Leu(taa)[1167848,1167930]
gcaaaggtggcggagtggtttaacgcgctggacttaagatctagtatcat
ttgatatcgtgggttcgaatcccaccctttgca

>GU244497.1 Cafeteria roenbergensis virus BV-PW1, complete genome

1-1tRNA-Tyr(gta)[509015,509086]
ctcgccttagctcagtggttagagcggcgactgtagtccgtaggtcact
cgttcgaatcgggtaggtgaga
1-2tRNA-Leu(taa)[509181,509265]
gcatatgtgccgagtggtttaaggagacggttttaagcaccgttggtc
cggcctcgaggttcgaatcctgtcatatgcacca
1-3tRNA-Leu(taa)[509421,509504]
gtatatgtgccgagtggtttaaggagacggttttaagcaccgttggtc
cggcctcgaggttcgaatcctgtcatatacacc
1-4tRNA-Lys(ttt)[509506,509583]
gccttattagctcagttggattagagcagcaggcttttaacctgatggc
gtgggttcgagttcccacataaggctcca
1-6tRNA-Leu(taa)[509911,509993]
gcatatgtgccgagtggtttaaggagacggttttaagcaccgttggtc
cggcctcgaggttcgaatcctgtcatatgcac
1-7tRNA-Tyr(ata)[510066,510135]
gtcactttagcttaagggtaaagcaacaacattatacttgtgaatgtagg
ttcgattcctacaagtgaca

1-8tRNA-Leu(taa)[510177,510261]
gcataatgtgtccgagtggtttaaggagacggtttaagcaccgttggtc
cggcctcgcaggttcgaatcctgtcatatgcacca
1-9tRNA-Leu(taa)[510417,510501]
gtatatgtgtccgagtggtttaaggagacggtttaagcaccgttggtc
cggcctcgcaggttcgaatcctgtcatatacacca
1-10tRNA-Leu(taa)[510656,510739]
gtatatgtgtccgagtggtttaaggagacggtttaagcaccgttggtc
cggcctcgcaggttcgaatcctgtcatatacacc
1-11tRNA-Lys(ttt)[510741,510818]
gccttattagctcagttggattagagcagcaggctttaacctgatggc
gtgggttcgaatcccacataaggctcca
1-12tRNA-Leu(taa)[511091,511175]
gcataatgtgtccgagtggtttaaggagacggtttaagcaccgttggtc
cggcctcgcaggttcgaatcctgtcatatgcacca
1-13tRNA-Leu(taa)[511330,511414]
gtatatgtgtccgagtggtttaaggagacggtttaagcaccgttggtc
cggcctcgcaggttcgaatcctgtcatatacacca
1-14tRNA-Leu(taa)[511570,511653]
gtatatgtgtccgagtggtttaaggagacggtttaagcaccgttggtc
cggcctcgcaggttcgaatcctgtcatatacacc
1-15tRNA-Lys(ttt)[511655,511732]
gccttattagctcagttggattagagcagcaggctttaacctgatggc
gtgggttcgaatcccacataaggctcca
1-16tRNA-Asn(gtt)[511736,511809]
ggtagcgtagaacaattggttagttcaacagactgttaatctgaaggtg
ttggttcgagtcacccggtaccg

>JN258408.1 Megavirus chiliensis, complete genome

1-1tRNA-Leu(taa)c[15827,15909]
gctaaggtggcggagtggtctaacgcgatagacttaagatctattatcat
ttgatgtcgtgggttcaaatcccacccttagca
1-2tRNA-Leu(caa)c[16963,17045]
gctaaggtggcggagtggtctaacgcgtagactcaagatctactatctt
atgatgtcgtgagttcgaatctcacccttagca
1-3tRNA-Trp(cca)c[62763,62833]
gacctgttagtttaattggtaaaatggcgcctccagagtattgatatcg
gttcgattccggtacaggtcc

>JX962719.1 Acanthamoeba polyphaga moumouvirus, complete genome

1-1tRNA-His(gtg)[96801,96872]
gatctgttagtttagttgtagaatacctgtctgtggaacaggagacatc
ggttcgaatccgatacaggtca
1-2tRNA-Cys(gca)[96877,96951]
aggaccattagctcaattggttagagcaatcgcctgcagagcgagaggtta
ctggttcaagtccagttatgttccta

>KF527228.1 Mimivirus terra2 genome

1-1tRNA-His(gtg)[116247,116317]
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1-3tRNA-Leu(taa)c[768570,768652]
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1-4tRNA-Leu(taa)c[960128,960210]
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1-5tRNA-Leu(caa)c[993610,993692]
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1-6tRNA-Trp(cca)c[1003497,1003567]
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gttcgattccggtataggtcc

*Myoviridae

>AF158101.6 Enterobacteria phage T4, complete genome

1-1tRNA-Arg(tct)c[71173,71247]
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1-2tRNA-Met(cat)c[71960,72033]
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1-3tRNA-Thr(tgt)c[72035,72110]
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1-4tRNA-Ser(tga)c[72117,72205]
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1-5tRNA-Pro(tgg)c[72206,72280]
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1-6tRNA-Gly(tcc)c[72291,72364]
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1-7tRNA-Leu(taa)c[72370,72456]
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 >U24159.1 Bacteriophage HP1 strain HP1c1, complete genome
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 >AF320576.1 Bacteriophage Felix 01, complete genome
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 gagggttcaaatcccttctggaacgcca
 1-3tRNA-Met(cat)[23952,24028]
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 1-4tRNA-Asn(gtt)[24112,24188]
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 1-10tRNA-Ser(tga)[26629,26718]
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 1-12tRNA-Lys(ctt)[27060,27135]
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 1-13tRNA-Ala(tgc)[27142,27217]
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1-14tRNA-Gly(tcc)[27224,27298]
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1-16tRNA-Val(tac)[27900,27974]
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1-17tRNA-Leu(caa)[27976,28053]
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1-19tRNA-Gln(ttg)[28828,28903]
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1-20tRNA-Leu(taa)[28906,28984]
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1-21tRNA-Gln(ctg)[28990,29065]
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1-22tRNA-His(gtg)[29097,29172]
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1-23tRNA-Phe(gaa)[29179,29254]
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1-24tRNA-Ser(gct)[30008,30100]
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1-25tRNA-Cys(gca)[30105,30180]
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>AY129337.1 Mycobacteriophage Bxz1, complete genome

1-1tRNA-Ser(gct)[32863,32946]
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tccgggttcgactcccgggcagggtac

1-3tRNA-Leu(gag)[33239,33313]
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cgggttcgactcccgccagagacac
1-4tRNA-Leu(caa)[33314,33387]
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1-5tRNA-SeC(tca)[69709,69805]
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1-11tRNA-Cys(gca)[95859,95930]
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1-13tRNA-His(gtg)[96071,96144]
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1-29tRNA-Arg(cct)[99972,100045]
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1-32tRNA-Arg(tct)[100665,100740]
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1-33tRNA-Gln(ctg)[127267,127341]

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1-34tRNA-Asn(gtt)[127348,127423]
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>AY375531.1 Bacteriophage 44RR2.8t, complete genome

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1-7tRNA-Trp(cca)c[67124,67199]
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1-17tRNA-Leu(taa)c[70506,70589]
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>AF399011.1 Pseudomonas phage phiKZ, complete genome

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1-6tRNA-Pro(tgg)c[273271,273346]
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1-7tRNA-Leu(taa)c[273356,273440]
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>AY266303.2 Bacteriophage Aeh1, complete genome

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1-3tRNA-Ser(gct)c[106250,106337]
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1-4tRNA-Ser(tga)c[106694,106788]
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cagttcaattctgggagggcccacca
1-8tRNA-His(gtg)c[107856,107931]
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1-9tRNA-Thr(tgt)c[108011,108085]
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1-10tRNA-Tyr(gta)c[108092,108183]
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gtggttcaaatccaccactcgcac
1-12tRNA-Glu(ttc)c[108303,108378]
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1-13tRNA-Met(cat)c[108870,108944]
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1-15tRNA-Trp(cca)c[109247,109320]
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tgttcaaatcagatccggtactcca
1-17tRNA-Gly(tcc)c[110347,110420]
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gttcgattcccgaatgaggctcca
1-18tRNA-Ala(tgc)c[110494,110569]

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1-20tRNA-Ile(gat)c[111020,111094]
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ggttcgataccattcgggactacca
1-21tRNA-Asn(gtt)c[111229,111311]
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1-23tRNA-Leu(caa)c[114726,114810]
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tagtcgtgtgggttcgaatcccactactcccacca

>AY283928.2 Bacteriophage KVP40, complete genome

1-1tRNA-Ser(gct)c[173137,173225]
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1-2tRNA-Leu(caa)c[173666,173742]
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cgagttcgaatctcgggttgggcacca
1-3tRNA-Leu(taa)c[173859,173935]
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cggttcgaatccgccgtgcgtacca
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1-5tRNA-His(gtg)c[174115,174191]
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1-6tRNA-Val(tac)c[174509,174582]
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gctcgattccactaggactacca
1-7tRNA-Gly(tcc)c[174588,174661]
gcgggtatgatgaatggtagcatgacgtcctccaagtcgttcgtctcg
gttcgagtcggttaccgctcca
1-8tRNA-Met(cat)c[174849,174924]
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gatttcgagtatcggtgtctccacca
1-9tRNA-Arg(tct)c[175429,175504]
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gggttcgaatccctctgggatgccca
1-10tRNA-Thr(tgt)c[175901,175976]
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1-11tRNA-Gln(ttg)c[176105,176178]
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gttcgaatccgttatcccctgccca
1-12tRNA-Asp(gtc)c[176198,176273]
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1-13tRNA-Asn(gtt)c[176496,176571]
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1-14tRNA-Asn(gtt)c[176578,176652]
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1-15tRNA-Trp(cca)c[176936,177009]
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gttcgaatctctatgtccctgccca
1-16tRNA-Ile(gat)c[177016,177089]
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1-17tRNA-Ser(tga)c[177154,177239]
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1-18tRNA-Met(cat)c[177260,177335]
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1-19tRNA-Tyr(gta)c[177438,177523]
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1-20tRNA-Glu(ttc)c[177530,177603]
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gttcgactcccgtatcgagtacca
1-21tRNA-Lys(ttt)c[177667,177743]
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1-22tRNA-Lys(ttt)c[177755,177829]
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1-23tRNA-Phe(gaa)c[177836,177910]
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1-24tRNA-Leu(tag)c[177912,177989]

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 1-2tRNA-Thr(tgt)[69426,69501]
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 1-3tRNA-Met(cat)[70933,71008]
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 1-1tRNA-Leu(taa)[17806,17892]
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 >AF543311.2 Burkholderia cepacia phage Bcep781, complete genome
 1-1tRNA-Ser(gct)[17815,17906]
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 >AY682195.1 Lactobacillus plantarum bacteriophage LP65, complete genome
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 cggttcaaatccggtgggagct
 1-2tRNA-Thr(tgt)c[49777,49847]
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 gtccaactctggaacgaggca
 1-3tRNA-Trp(cca)c[49854,49928]

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1-4tRNA-Pro(tgg)c[50751,50824]

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1-5tRNA-Phe(gaa)c[51456,51529]

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1-6tRNA-Leu(caa)c[51683,51757]

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1-7tRNA-Leu(tag)c[51767,51841]

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tgagttcgaatctcaccgagagcat

1-8tRNA-Leu(taa)c[51952,52026]

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taggttcgaatcctacagagagcat

1-9tRNA-Pro(tgg)c[52591,52668]

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tcgctggttaaagcccagcactataatt

1-10tRNA-Asn(gtt)c[52802,52875]

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1-11tRNA-Ser(gct)c[52976,53065]

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1-12tRNA-Ile(tat)c[53204,53277]

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tgggtcgaaccacctacgagtat

1-13tRNA-Arg(cct)c[53541,53613]

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cagttcgaatctgggatagcaca

1-14tRNA-Arg(tct)c[53992,54067]

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>KF766114.1 Staphylococcus phage K, complete genome

1-1tRNA-Met(cat)c[14229,14300]

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1-2tRNA-Trp(cca)c[37448,37519]

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1-3tRNA-Phe(gaa)c[37526,37598]

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 1-4tRNA-Asp(gtc)[37604,37679]
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 >AJ298298.1 Bacteriophage P27 complete genome
 1-1tRNA-Met(cat)[17158,17233]
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 1-2tRNA-Arg(tct)[17335,17411]
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 ctggttcgaatccagtacaacgcgcca
 >AJ630128.1 Bacteriophage S-PM2 complete genome
 1-1tRNA-Ser(tga)[102852,102939]
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 gttggttcgagtcgaacctgaggcgt
 1-3tRNA-Lys(ttt)[118652,118726]
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 tcggttcgaacccgaccagacccat
 1-4tRNA-Tyr(gta)[118765,118848]
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 tgccttcgcaggttcgaatcctgctcctcccacc
 1-5tRNA-Asp(gtc)[118850,118925]
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 1-6tRNA-Glu(ttc)[118982,119056]
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 1-7tRNA-Ile(gat)[119058,119131]
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 tgggttcgagtcagttgtttccac
 1-8tRNA-Ser(gct)[119134,119224]
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 1-9tRNA-Ser(gga)[119226,119312]
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 1-10tRNA-Met(cat)[119315,119386]
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 1-11tRNA-His(gtg)[119388,119461]
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 1-13tRNA-Trp(cca)[119538,119611]
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 1-14tRNA-Arg(acg)[119612,119685]
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 1-15tRNA-Val(tac)[119727,119798]
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 1-16tRNA-Pro(tgg)[120240,120313]
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 1-17tRNA-Gly(tcc)[123000,123071]
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 1-18tRNA-Ile(tat)[163382,163456]
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 1-19tRNA-Met(cat)[163460,163533]
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 1-20tRNA-Leu(taa)[163577,163662]
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 1-24tRNA-Met(cat)[164824,164900]
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 1-25tRNA-Asn(gtt)[165144,165218]
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 ctggttcgagtcaggtgggggagt
 1-26tRNA-Leu(tag)[165220,165302]
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>AY303349.1 Enterobacteria phage RB69, complete genome

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 >AY954970.1 Staphylococcus phage Twort, complete genome
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 >AY954969.1 Bacteriophage G1, complete genome
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 1-2tRNA-Trp(cca)c[133870,133941]
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 tgtgcaaatcaaagagggtgtg
 1-3tRNA-Phe(gaa)c[133948,134020]
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 tggttcaaatccaatagaaacca
 1-4tRNA-Asp(gtc)c[134026,134101]
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 >AY939844.2 Prochlorococcus phage P-SSM2, complete genome
 1-tRNA-Asn(gtt)[162082,162169]
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 >AY962392.1 Aeromonas phage 31, complete genome
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1-7tRNA-Thr(tgt)c[67198,67273]
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1-8tRNA-Pro(tgg)c[67913,67989]
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1-9tRNA-Gly(tcc)c[68496,68571]
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cggttcgataccggctacccgctcca
1-10tRNA-His(gtg)c[68584,68658]
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1-11tRNA-Lys(ttt)c[68950,69025]
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1-12tRNA-Tyr(gta)c[69083,69165]
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1-14tRNA-Phe(gaa)c[69828,69912]
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1-15tRNA-Ser(tga)c[69983,70076]
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cgtaggaatacggccatccgttcaaactggatagcttccgcca
1-16tRNA-Leu(taa)c[70267,70350]
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>AY967407.1 Enterobacteria phage RB43, complete genome

1-1tRNA-Met(cat)[50172,50248]
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>AJ697969.1 Pseudomonas phage phiEL complete genome

1-1tRNA-Thr(cgt)[102946,103021]
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>DQ320509.1 Lactobacillus phage KC5a, complete genome

1-1tRNA-Gln(ttg)[12499,12573]
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ttggttcgagcccagctagtcctat

1-2tRNA-Tyr(gta)[13163,13246]

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>DQ529280.1 *Aeromonas salmonicida* bacteriophage 25, complete genome

1-1tRNA-Arg(tct)c[61945,62020]

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1-2tRNA-Met(cat)c[62593,62668]

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gggttagattcccgcgaggccacca

1-3tRNA-Met(cat)c[62876,62952]

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1-4tRNA-Asp(gtc)c[62974,63047]

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gagttcgatcctcgggtggctccgc

1-5tRNA-Ser(gct)c[63125,63212]

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1-6tRNA-Ile(gat)c[63220,63295]

agttggattagctcagtaggtagcactcgaccgataatcgagagcgc
tggttcgatcccaatatccactacca

1-7tRNA-Trp(cca)c[63298,63373]

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gggttcgaatccttgatgtcatgcca

1-8tRNA-Thr(tgt)c[63738,63813]

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cagttcgaatctgacaattggctcca

1-9tRNA-Pro(tgg)c[64074,64152]

ccgtgtgtaggctagtcaggttaggtcgtctggttggggccagaaagtc
gaaggttcgaatccctccacacggacca

1-10tRNA-Gly(tcc)c[64397,64472]

gcgaatatagctcagttggttagagcttctgcctccaagcagaatgcat
cggttcgatcccgaattatcgctcca

1-11tRNA-Asn(gtt)c[64600,64682]

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tctacgttggttcgactccaaccatcacggcca

1-12tRNA-Ser(tga)c[64851,64944]

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cgtaggaatacgggtccatccgttcgaatcgatatcttcctcca

1-13tRNA-Leu(taa)c[65136,65220]

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cgggattgtgggttcgagtcctactactgcacca

>DQ997624.1 *Thermus thermophilus* phage YS40, complete genome

1-tRNA-Thr(tgt)[52068,52143]
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1-2tRNA-Met(cat)c[120023,120099]
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taggttcgagtcctacacgccccacca
1-3tRNA-Arg(tct)c[120112,120188]
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caggttcaagtcctgcacccctcgcca

>DQ398053.1 Mycobacteriophage Catera, complete genome

1-tRNA-Ser(gct)[30008,30091]
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cacaccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[30188,30264]
gccctgctgagcaactggcaaagctgccgattcagagtgcgggtcatt
tccgggttcgactcccgggcagggtac
1-3tRNA-Leu(gag)[30384,30458]
gtctctgtaggcaaatcgaaaagccgcatctgagggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[30459,30532]
gccgtggtaggccatctggcgagccgagttcaagttcgggtgttgc
gggttcgaatcccgcacgggtac
1-5tRNA-SeC(tca)[66782,66878]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgaccggaacatcccgttcaacgcgaccaggggcc
1-6tRNA-Pro(tgg)[90077,90151]
cggggtgtagttcagtttgaagagcgttggttgggaccaagatgtcg
caggttcgaatcctgtcaccgccac
1-7tRNA-Trp(cca)[90166,90236]
gggtctgtgcacagggtgcccgcaggtctcaaagccgaaggcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Tyr(gta)[90238,90324]
cccgatcatgcccaactggtgttgggagcaggctgtaaatctgtggcct
tcgggacggtgaggttcgattcctcagtcgggacca
1-9tRNA-Pyl(cta)[91378,91451]
tgcgagatcgtgcacggcgactaggagcttctaaccctccgactcgcgg
gttcgactcccgcattctgcacccc
1-10tRNA-Met(cat)[91599,91673]
agcggtagagcagctaggtagctcggggctcatgaccggaggacg
cgtgttcgattcacgccaccgccac
1-11tRNA-Cys(gca)[91800,91871]
gcgcctttggcggaatggctacgtgctcggctgaacccgagttatcccg
gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[91876,91950]

gggccgttggagtagatggacatctcgccaccctctcaagtgagatca
cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[91952,92025]
gtggccgtagttcagccggtagaacgctgggttgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[92187,92261]
gggcctgtagctccaattggtagagcagcatccttgcaagatgacggctg
tcggttcgaatccgacctggccac
1-15tRNA-Phe(gaa)[92451,92523]
gccgtcatagctcagttggtagagcaccggcctgaaaacccggtggccga
gggttcgagtcctcgtgtcggcac
1-16tRNA-Val(cac)[92529,92602]
gtccgtttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[92721,92793]
gccttcgtagctcagtggtagagctgtcgcccttaagcgataggctgtt
ggttcaaattccagccgggggcac
1-18tRNA-Glu(ttc)[92797,92871]
ggtcgggtggtctgttggcaggccggtcggattttcactccggacattcg
cgggttcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[92951,93023]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacga
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[93083,93156]
gtcgtgtagctcacctggcagagcgctggcgctcgtatcccgaaggcatc
cgggttcgagtcggacagcagctc
1-21tRNA-Thr(tgt)[93165,93238]
gccctttagctcagtggcagagcaccgaccttgtaagtcgggttgtccc
gggttcgattcctggtaggggctc
1-22tRNA-Thr(ggt)[93747,93821]
gctactgaggcccatatggatggcgcgcccatggttaagccgaggtaga
tgggttcaagtcctccagtagctc
1-23tRNA-Gly(gcc)[95144,95217]
gcgaaggtagctcagctggcagagcgccaccttgccaagtgagggtcgc
gggatcgtaaccggttcttcgctc
1-24tRNA-Asp(gtc)[95221,95293]
ggccctgtagctcagaggaagagcgccgatctgtcgaatcgaggtcgcg
gtatcgtaatccgtcagggtcgc
1-25tRNA-Met(cat)[95353,95425]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-26tRNA-Ile(gat)[95431,95505]
gcctgttagcggactggtcgtccgatccaagctgataactggcgtaagc
ggtgttcgattaccgagcaggtac

1-27tRNA-Arg(acg)[95599,95671]
gcctctatggtccaacggatatgacccggtctacggaaccggagatgcg
tggtcgattcgcgctaggggcac
1-28tRNA-Val(gac)[95714,95786]
gtccgtgtagctcaggggtagagcgctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-29tRNA-Arg(cct)[95960,96033]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-31tRNA-Gln(ttg)[96574,96649]
tggggtatggtggcaatctggcagtcgcccggaacttgactccggaggt
gcaggttcgagtcctgctaccccatc
1-32tRNA-Arg(tct)[96653,96726]
gccctttagctcagtgagacagagcggcgagcttctacctcggggccgg
gagttcgaatcctctccaggggcac
1-33tRNA-Lys(ttt)[96794,96870]
gggccggtatcttagtctggtcaaagaagtggaactttaatccgcgcgc
gtgggttcgaatccaccggccacc
1-34tRNA-Gln(ctg)[124401,124475]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-35tRNA-Asn(gtt)[124482,124557]
tggggtgtccgttaatcaggcaaacgagcggactgttaatccgcccctgc
aggttcgaatcctgccacccagcca

>DQ149023.2 Synechococcus cyanophage syn9, complete genome

1-1tRNA-Val(tac)[15973,16044]
gggcgaatagctcagcggtagagctactcgtttacaccgagtcggtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[19727,19813]
tgggagcgtggcggaaatcggtagacgaccagacttaaaatctgttgaga
attaatctcgtgggggtcaattcccccgctcctat
1-3tRNA-Thr(tgt)[20001,20075]
gccaaactagctcagctggatagagcaacggtttgtaaaccgtaggtca
acggttcaagtcggtgttggctc
1-4tRNA-Ala(tgc)[20078,20150]
ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[20225,20298]
ttcctcttagctcagcggtagagcgattgactgttaatcaattggtccc
tggttcgatcccaggaaggggagt
1-6tRNA-Arg(tct)[162261,162336]
tgggtcagtagctcagctggatagagcaactgccttctaagcagtcggtc
acaggttcgaatcctgtctgaccgt

>DQ904452.1 Bacteriophage RB32, complete genome

1-tRNA-Arg(tct)c[67482,67558]
cggggcatagctcaattgtatagagcaacggacttctaataccgtaggttg
aaggtagaatccttctgtctcgacca
1-2tRNA-Met(cat)c[68269,68340]
ggcctgtagctggaaggttcaagcaagcgactcataatcgccagatggt
ggttcaattccaccaggcca
1-3tRNA-Thr(tgt)c[68342,68417]
gctgatttagctcagtaggtagagcaactcacttgaatgagaagtcgg
cggttcgattccgtcaatcagacca
1-4tRNA-Ser(tga)c[68419,68507]
tggagcgtggcagagtggtttaatgcaccggcttgaaaaccggcagtc
gctccggcgactcataggttcaaatcctatcgctccgt
1-5tRNA-Pro(tgg)c[68508,68582]
ctccgttagctcagtttgtagagcgctgattgggatcaggaggtcc
aaggttcaaatccttgtatggagac
1-6tRNA-Gly(tcc)c[68593,68666]
gcggatatcgataatggcattacctcagactccaatctgatgatgtga
gttcgattctcattatccgctcca
1-7tRNA-Leu(taa)c[68672,68758]
gcgagaatggtaaattggtaaaggcacagcacttaaatctgcggaat
gatttccttgggttcgagtccttctcgacca
1-8tRNA-Gln(ttg)c[68759,68832]
tgggaattagccaagttgtaaggcatagcactttagctgtagatgcaa
aggttcgagtccttattcccagc

>AB231700.1 Microcystis phage Ma-LMM01 DNA, complete genome

1-tRNA-Met(cat)c[34160,34232]
gcaggattggccgataggtggaggcaccgtcctcataagacggcttagag
cggttcgattccgctatcctgca
1-2tRNA-Tyr(gta)c[145179,145261]
gggttagtggccgagtagtgaaggcgacagactgaaatctgtagtagta
attccacgtggtgcaaatccagcctaaccac

>EF583821.1 Bacillus phage 0305phi8-36, complete genome

1-tRNA-Val(aac)c[183119,183194]
tgtcatcgtagcttaataggtaaagcgtgacctaacaatgtcagagaat
ggggttcgaaaccttacatgatgacc

>DQ003638.2 Listeria phage A511, complete genome

1-tRNA-Met(cat)c[25835,25908]
ttgtcccgtagctagaaggtcgagcaaggagctcataactcctcggtttg
ggttcgattcccaacggggaatc
1-2tRNA-Pro(tgg)c[26802,26876]
cagggtgtagctcagtttggttagagtacccgcttggagacgggaagtc
gtaggttcgaatcctaccacctga
1-3tRNA-Arg(tct)c[27994,28064]
gtccttatggttagcggatgcacaagggttctactcccttagcgcgg

gttcgaatcctgctgaggact
 1-4tRNA-Gly(tcc)c[28311,28381]
 gcgggtatagatataaggtagtaccaaaggtttccaacatgtagtggg
 gttcgaatccccctaccgct
 1-5tRNA-Asn(gtt)c[28450,28523]
 gtgtccttaactcagaggtcagagtgccgtcctgttaagtcggaagtcgc
 tggttcaatccagcaggatacgc
 1-6tRNA-Ser(tga)c[29144,29235]
 ggaaggttggtagagcttggtataacgctagctctgaaaactagttgcc
 ctggaatacagggtacaagggttcaatcccttaccttct
 1-7tRNA-Phe(gaa)c[29248,29319]
 gtagtcctagctgagatggattagcgcttgcttgaaaagcaagagaggca
 ggttcgatacctcggactcca
 1-8tRNA-Lys(ttt)c[29325,29396]
 ggagttatggtgaaatggctatcactgcgggtttttaccccggtattcta
 ggttcgaatcctagtggtctcca
 1-9tRNA-Trp(cca)c[29521,29594]
 taggggtatagttatctggtaaaatattggtttccaactccaatgaggt
 gggttcaagtcctactatccctgt
 1-10tRNA-Gln(ttg)c[29596,29668]
 tggctctgtagccaagcggtaaggcaacggatttgattccgtgatacgtt
 ggttcgaatccaactagaccagc
 1-11tRNA-Thr(tgt)c[29687,29758]
 gcttgatagttcaattggtagaacagtggtttgttaagcctcagacgtg
 ggttcaagtcctactacaagca
 1-12tRNA-Tyr(gta)c[29841,29922]
 gtgccattcgcatagaggcaattgcgggggactgtaactcccctcccttc
 ggggttccaaggttcgagtccttgatggcgca
 1-13tRNA-Leu(tag)c[30283,30367]
 tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
 caaggatatgtgggttcgaatcccactctcggtat
 1-14tRNA-Asp(gtc)c[30833,30905]
 gtgcgtatgatataatggctattatactcgactgtctatcgagaaatagg
 ggttcgattccccttacgtgcgc
 1-15tRNA-Ile(gat)c[31009,31081]
 accagcatagcttaggaggcaaagcaaccgaccgataatcggtagtcctt
 ggttcaattccaagtgttggtac
 1-16tRNA-Ser(gct)c[31258,31344]
 ggagagttgtcagagaggcttaatgatacgggttgtaactcgttgact
 agtaatagtagcaagggttcgaatcccttactctcct
 1-17tRNA-Cys(gca)c[31426,31496]
 gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
 gttcaattccattaccgct

>EF460875.1 Enterobacteria phage phiEcoM-GJ1, complete genome

1-tRNA-Leu(cag)[14456,14550]
ggacgagtagctcagaaggttgcattgtgctcagtcaggtagagcaatc
tgttcgacagatgtgtcgttggttcgaatccaacctgtccgcca

>AP009390.1 Enterococcus phage phiEF24C DNA, complete genome

1-tRNA-Met(cat)c[136981,137054]
ggacgttagctcagttggtagagcattcggctcataaccgaacggtcg
caggttcgagacctgcaatgtcca

1-2tRNA-Leu(tag)c[137677,137761]
gcagaagtgtggaactggtagacaacggtgtcttagaaacatcggctg
taatggacgtgtgggttcgactcccgcttctgca

1-4tRNA-Arg(tct)c[138482,138557]
tgtaggttagctcaatagtaggagcatccgccttctaagcggacggtt
gggggttcgattccctccatctacgt

1-5tRNA-Trp(cca)c[139156,139229]
tagtcggttagtgtaactggtaacacgttggtctccaaaaccaataatag
gggttcaaatcctctaccgattgt

1-6tRNA-Asp(gtc)c[139479,139554]
tggcagtatagggcagaggtgtcccaacacgttgtcagcgtggaacaca
cgggttcgagtccttactgtcgtc

>EF469154.1 Enterobacteria phage JS98, complete genome

1-tRNA-Arg(tct)c[70206,70281]
cgaggcatagctcagaaggaagagcaacggtcttctaaaccgtaggtcgt
aggttcgatccctactgtctcgacca

1-2tRNA-Asn(gtt)c[70286,70360]
ggatgtgtagctcagcggtagagcagttgactgttaatcaattggtccat
ggttcgaatccatgcatgtccgcca

1-3tRNA-Met(cat)c[70365,70438]
ggccctgtagctggacggtcaagcgagcgactcataatcgctggatggtg
gttcgattccaccagggccacca

>EF602154.1 Burkholderia phage BcepNY3, complete genome

1-tRNA-Tyr(gta)[16343,16426]
ggaggcgtggctgagtggtcgaaagcggcgactgtaaatccgttaccaa
gttcgcggtggttcgaatccaccgtctccacca

>EU197055.1 Pseudomonas phage 201phi2-1, complete genome

1-tRNA-Leu(taa)c[300263,300349]
gccggtgtgatcgaattggtatagtagcgacttaaaatccgcccccg
taagggtgtgggatcgaggcccaccaccggcacca

>DQ832317.1 Escherichia coli bacteriophage rv5, complete sequence

1-tRNA-Pro(tgg)c[61976,62052]
ctccgctagctcagcttggttagagcgctgatttgggatcaggaggtcg
agtgttcgaatcactccgtggagacca

1-2tRNA-Met(cat)c[62064,62138]
ggccctgtagctggaaggttcaagcaagcgactcataatgccagacggt
ggttcaattccaccagggccacca

1-3tRNA-Thr(tgt)c[62140,62215]
gctgatgtagcacaatcggtagtgaattgattgtaataataggttgt
aggttcaagtccctgccatcagcacca
1-5tRNA-Ser(tga)c[62418,62508]
ggagggtaggagcaatggtgctcaagcggctctgaaaaccgtcccgttg
aggatgactcgalgatgggtcgattccattactctccgccca
1-6tRNA-Tyr(gta)c[62623,62709]
ggggagttatcccgtagaggtagcgggtgtagactgtaaatctattgtcat
tgcgactcgggtggttcgactccaccactccccacca
1-7tRNA-Arg(tct)c[62714,62788]
gccctgtagcttagtggataaagcagcggccttctaagccgttgacact
ggttcgagtcagtagcgggtgcca

>AB366653.2 Ralstonia phage RSL1 DNA, complete genome

1-1tRNA-Gly(tcc)c[186301,186376]
gcgggcgtagctcagttggtagagtcttgcctccaagcaagatgtcgc
gagttcgagtctcgtcgcccgtcca
1-3tRNA-Pro(tgg)c[186529,186606]
ccgagtgtagcgcagctcgttagcgcacctgattgggatcagggggtc
ggaggttcgaatcctctcactcggacca

>EU826466.1 Mycobacterium phage Myrna, complete genome

1-1tRNA-Ser(gct)[32466,32548]
ggagggtgagtatcaggtgatacagcgagattgctaatacccgtacggctc
atacccgtaggttcaagtcctcctccctccgc
1-2tRNA-Leu(cag)[32662,32737]
gccccctgggcaaatggcaaatcgctgcactcagactgcagagtttt
ccgggttcgagtcggcggggggtac
1-3tRNA-Leu(gag)[32799,32872]
ggaccggtagcccaaaggcagaggcagcacgttgaggacgtgtccagtgc
gggttcgactcccgtcgggtctac
1-4tRNA-Leu(caa)[32873,32955]
gctccagtggcgtaatggcagccgcgccgactcaaatgcggtgtccgt
aggacgtgcgagttcgagtcgcctggagtac
1-5tRNA-Pyl(cta)[33522,33593]
gcgagattggtctggtgacctagcagcttctaaacctcgcgatcgaccg
gttcgactccggtatctcgcgc
1-6tRNA-Pro(tgg)[91832,91904]
cgggatatggtgtaagggttagcacgattggttgggaccattctgacgg
ggttcgagtcctgttcccgc
1-7tRNA-Tyr(gta)[92391,92475]
gccgtgtatgcccaactggtgttgggagcaggctgtaaccctgtggcct
tcgggacggcgagttcgattctctgacgcggcac
1-8tRNA-Met(cat)[92614,92688]
agcggggtagagcagctcggtagctcgccaggctcataacctggaggccg
tgggttcaatcccactcccgcac

1-9tRNA-Ala(tgc)[92828,92901]
ggggatgcatgttccttggggcgactgatccttgcaagatcggtaggt
gggttcgattcccatcatctccac
1-10tRNA-Cys(gca)[92905,92977]
gtgctgatggccgagatggttaggcactgggttgcaacccaggcacgca
ggttcgagtcctgttcggcactc
1-11tRNA-Glu(ctc)[93010,93081]
ggtcctatgggtagtggtagcccatctccctctcacggagacggccga
gttcaattctcgtaggactgc
1-12tRNA-His(gtg)[93083,93155]
gtggccatagttcaatggcagaacgccgggtgtgatcccggtcgcgagg
gttcgattccctctggtcacccc
1-13tRNA-Gly(tcc)[93156,93227]
gcgctcgtggcatattggttgtctccagcctccaagctggctaagcag
gttcgattcctgtcgggcgctc
1-14tRNA-Ala(ggc)[93384,93457]
ggggctgtagctcaatcggtagagcgtctcgctggcagtgagaaggcagt
cggttcgalcccgaccagttccac
1-15tRNA-Phe(gaa)[93490,93562]
gccttcatagtcagttggtagagcgtcggactgaaaacccggaggccgt
ggttcgattccacgtgtggcac
1-16tRNA-Val(cac)[93566,93634]
gtcctctagctctgggacagaagtcgggtcacatccgatcgagcggggt
cgattccctgggggagtac
1-17tRNA-Lys(ctt)[93647,93721]
ggccctagagcacggtctggtagtctacggactctaatccgcaggtcg
taggtcaaatactactggggccac
1-18tRNA-Lys(ctt)[93732,93805]
gcgctcgtagctcagctggtagagctgctgactcttaatcagcatgtcgg
gggttcgagtcctccggcgctac
1-19tRNA-Gly(gcc)[94110,94183]
gtgcttgaggtgtaaatggtcgcacgacaccttgccaaggttaggaagc
cggttcgatcccgtcaggcactc
1-20tRNA-Asp(gtc)[94262,94337]
ggcctatcgggtccagctctggagtgacaccgccctgtcacggcgagagc
acgggttcaaataccgtataggtcgc
1-21tRNA-Met(cat)[94418,94491]
gcctgtgtagctcatctggcagagcgccctgctcataacggggaggtaag
tggttcgagaccactcataggtac
1-22tRNA-Ile(gat)[94589,94663]
gcctgttagcggactggctcgtccgatccaagtgataactggcgcaagg
agtgttcgattcactcagcaggtac
1-24tRNA-Arg(acg)[94809,94882]
ctcccggtggttcaacggatagagcgccagactacgaatctggagagtgg

gggttcgattccctctcgggagac
 1-25tRNA-Met(cat)[94903,94977]
 gtcggttatcgtttaacgaaaaacaattcactcataatgaatcactccg
 gggttcgagtcggttcggctcca
 1-26tRNA-Thr(ggt)[94998,95069]
 gctggattagcatagtggttagtgccttccttggtatggaagtagccggg
 gttcgattccccgattcagctc
 1-27tRNA-Val(gac)[95075,95147]
 gctctttagctcagtggttagagcaccagcccgacatgctggtgtccga
 gggttcgattcctcgttgagcac
 1-28tRNA-Thr(tgt)[95326,95397]
 gcctccatcggttcagtggttagagcgcctgtaagcaggctgcgggc
 gttcgattcgtcctggaggctc
 1-29tRNA-Glu(ttc)[95403,95477]
 gggttcggtggtctgctggctgtccactcaggtttccacctgggatacg
 cgggttcgattcccggtccgaactac
 1-30tRNA-Thr(cgt)[95561,95635]
 gctggtagaagcgtgaacggtttacgcacggccctcgtaacgccgagaagt
 cgggttcgactccgacctccagctcc
 1-31tRNA-Arg(cct)[96160,96234]
 gccgctgtagctcatgcggacagagcgaccgttcctaaacggtaggcag
 ggggttcgagtcctcccagcgggtgc
 1-32tRNA-Gln(ttg)[96267,96340]
 tgaggtgtggtctgctggcaggccagcgggcctttgacccccgcctccgt
 aggttcgattcctgccacctcagc
 1-33tRNA-Arg(tct)[96341,96416]
 gcctctgtagctcagtggtatagcaccgagttctacctcgggtgccgg
 gattcgatcctctccagggcacca
 1-34tRNA-Lys(ttt)[96419,96492]
 ggggcgttggtgaacgcggctatcactcttggtttaccctgaatacc
 gggatcgagaccggagccccac
 1-35tRNA-Gln(ctg)[122545,122616]
 tgctgttggtgtaatggcaacacgcgggtttctgacaccggtattcttg
 gttcgagtccaggcgggcagc
 1-36tRNA-Asn(gtt)[122636,122710]
 tggctactagctcaattaggcagagcaacgccctgttaaggcgtcaggtg
 aagggtcgagtccttcgtggccagc

>EU826468.1 Mycobacterium phage Spud, complete genome

1-1tRNA-Ser(gct)[31867,31950]
 ggagggtgagcatctggtgatgcagggtcctgctaaggccctacggatt
 cacaccggtgagtttcgattactcctccctccgc
 1-2tRNA-Leu(cag)[32047,32123]
 gccctgctgagcaaactggcaaagctgccgattcagagtgcgggtcatt
 tccgggttcgactcccgggcagggtac

1-3tRNA-Leu(gag)[32243,32317]
gtctctgtaggcaaatcgaaaagccgccatctgagggggtggtgcgtg
cgggttcgactcccgccagagacac
1-4tRNA-Leu(caa)[32318,32391]
gccgtgtaggccatctggcgagccgccagttcaagtttcggtgttgc
gggttcgaatcccgcacgttac
1-5tRNA-Pro(tgg)[91905,91979]
cggggtgtagttcagtttgaagagcgcttggttgggaccaagtgtcg
caggttcgaatcctgtcacccgac
1-6tRNA-Trp(cca)[91994,92064]
gggtctgtgcacagggtgcccgcggtctcaaagccgaagcgggggtt
cgattccctccagcctgcca
1-7tRNA-Pyl(cta)[93255,93327]
gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtccg
gttcgactccggcatggtgcacc
1-8tRNA-Met(cat)[93477,93551]
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cgtgttcgaatcacgccaccgccac
1-9tRNA-Cys(gca)[93678,93749]
gcgcctttggcggaatggctacgtgctcggtgcaacccgagttatcccg
gttcgactccgggaggcgctc
1-10tRNA-Glu(ctc)[93754,93828]
ggtccgttgtagtagatggatatctgccaccctctcaaggtggagatca
cgggttcaagcccgtacggactgc
1-11tRNA-His(gtg)[93830,93903]
gtggccgtagttcagccggtagaacgtgggtgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-12tRNA-Ala(tgc)[94065,94139]
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1-13tRNA-Phe(gaa)[94329,94401]
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ggttcgattcctcgtgtggcac
1-14tRNA-Val(cac)[94407,94480]
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aggttcgatccctgcaatggacac
1-15tRNA-Lys(ctt)[94599,94671]
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ggttcgaatccagccgggggcac
1-16tRNA-Glu(ttc)[94676,94752]
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cgcgggttcaattcccgtcccgatcgc
1-17tRNA-Gly(tcc)[94832,94904]
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1-18tRNA-Thr(cgt)[94964,95038]
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cggttcgagtcggacagcagcccc
1-19tRNA-Thr(tgt)[95039,95111]
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cgttcgatccgggtagaggctc
1-20tRNA-Thr(ggt)[95171,95243]
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1-21tRNA-Gly(gcc)[96566,96639]
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1-22tRNA-Asp(gtc)[96643,96715]
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1-23tRNA-Met(cat)[96775,96847]
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1-24tRNA-Ile(gat)[96853,96927]
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1-25tRNA-Arg(acg)[97021,97093]
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tgttcgattcgcgtaggggcac
1-26tRNA-Val(gac)[97136,97208]
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1-27tRNA-Arg(cct)[97382,97455]
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1-29tRNA-Gln(ttg)[97996,98071]
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gcaggttcgagtcctgctaccccatc
1-30tRNA-Arg(tct)[98075,98150]
gccctgtagctcagtgacagagcggcgagcttctacctcgcgggccgg
gagttcgaatctctccagggcacca
1-31tRNA-Gln(ctg)[125262,125336]
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ggttcgaatcctaagcgagcagcca
1-32tRNA-Asn(gtt)[125343,125418]
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aggttcgaatcctgccacccagcca

>FJ839693.1 Enterobacteria phage RB51, complete genome

1-1tRNA-Arg(tct)c[71249,71325]
cgaggcatagctcaattgtatagagcaacggacttctaatacgtagggtg
aaggtagaatccttctgtctcgacca
1-2tRNA-Asn(gtt)c[71330,71404]
ggatgtgtagctcagtggtagagcagtgactgttaataatgggccat
ggttcgaatccatgcatgtccgcca
1-3tRNA-Tyr(gta)c[71409,71495]
ggggagttatcccgtagaggtagcgggtggactgtaaattcattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[71508,71582]
ggccctgtagctggaaggtcaagcaagcgcactcataatcgccagatggt
ggtcaattccaccaggccacca
1-5tRNA-Thr(tgt)c[71584,71659]
gctgatttagctcagtaggtagagcaactcacttgaatgagaaggtcgg
cggttcgattccgtcaatcagcacca
1-6tRNA-Ser(tga)c[71665,71754]
ggaggtgtggcagagtgggtgaatgcaccggtcttgaataaccggcagtcg
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1-7tRNA-Gly(tcc)c[72416,72489]
gcggatatcgataatgggtattacctcagactccaatctgatgatga
gttcgattctcattatccgctcca
1-8tRNA-Leu(taa)c[72495,72581]
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gatttccttgggttcgagtccttctcgcacca
1-9tRNA-Gln(ttg)c[72582,72655]
tgggaattagccaagttggttaaggcactggattttgattccaggatgcaa
aggttcgagtcctttattcccagc

>EU826467.1 Mycobacterium phage Rizal, complete genome

1-1tRNA-Ser(gct)[30469,30552]
ggaggggtgagcatctggtgatgcaggggtcctgctaaggccctacggatt
cacaccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[30649,30725]
gcctctgtgagcaactggcaagctgccgcattcagagtgccgggtcatt
tccgggttcgactcccgggcagggtac
1-3tRNA-Leu(gag)[30845,30919]
gtctctgtaggcaaatcgaaaaagccgccatcttgagggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[30920,30993]
gccgtggtaggccatctggcgagccgccgagttcaagtttcggtgtttgc
gggttcgaatcccgcacgggtac
1-5tRNA-SeC(tca)[66513,66609]
attctggcactgggtggcgagcccaccggcgagcttcaagctgtcgct
ggccggagaaccgaccggaacatcccgttaacgcgaccaggggcc
1-6tRNA-Pro(tgg)[89818,89892]

cggggtgtagttcagtttgaagagcgttggttgggaccaagatgtcg
caggttcgaatcctgtcaccgac
1-7tRNA-Trp(cca)[89907,89977]
gggtctgtgcacaggtgcccagcgtctcaaagccgaaggcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Tyr(gta)[89979,90065]
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tcgggacgggtgaggttcgattcctcagtcgggacca
1-9tRNA-Pyl(cta)[91119,91192]
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gttcgactcccgcatctcgacccc
1-10tRNA-Met(cat)[91340,91414]
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cgtgttcgattcacgccaccgcccac
1-11tRNA-Cys(gca)[91541,91612]
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gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[91617,91691]
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cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[91693,91766]
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gggttcgagtcctccggtcacc
1-14tRNA-Ala(tgc)[91928,92002]
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tcggttcgaatccgacctggtccac
1-15tRNA-Phe(gaa)[92192,92264]
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ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[92270,92343]
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aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[92462,92534]
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ggttcgaatccagccgggggcac
1-18tRNA-Glu(ttc)[92539,92615]
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cgcgggttcaattcccgtccgatcgc
1-19tRNA-Gly(tcc)[92695,92767]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[92827,92900]
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cgggttcgagtcggacagcagctc

1-21tRNA-Thr(tgt)[92909,92982]
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gggttcgattcctggtagggctc
1-22tRNA-Thr(ggt)[93491,93565]
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tgggttcaagtcctccagtagctc
1-23tRNA-Gly(gcc)[94888,94961]
gcgaaggtagctcagctggcagagcgcaccttgccaagtgagggtcgc
gggatcgaaccgttcttcgctc
1-24tRNA-Asp(gtc)[94965,95037]
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gtatcgaatccgtcagggtcgc
1-25tRNA-Met(cat)[95097,95169]
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ggttcgattccagggtgaggtac
1-26tRNA-Ile(gat)[95175,95249]
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gggttcgattcaccgagcaggtac
1-27tRNA-Arg(acg)[95343,95415]
gcctctatggtccaacggatatgacccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-28tRNA-Val(gac)[95458,95530]
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ggttcgaaacctcgcatggacac
1-29tRNA-Arg(cct)[95704,95777]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
agggtcgaatcctctcggaggcac
1-31tRNA-Gln(ttg)[96318,96393]
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gcaggttcgagtcctgctaccccatc
1-32tRNA-Arg(tct)[96397,96470]
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gagttcgaatcctcaggggcac
1-33tRNA-Lys(ttt)[96538,96614]
gggcccgtatcttagtctggtaaagaagtggaactttaatccgcgcgcc
gtgggttcgaatcccacccgcccacc
1-34tRNA-Gln(ctg)[124144,124218]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-35tRNA-Asn(gtt)[124225,124300]
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agggtcgaatcctgccaccccagcca

>EU826471.1 Mycobacterium phage Cali, complete genome

1-1tRNA-Ser(gct)[31290,31373]

ggagggtgagcatcaggtgatgcagcgagattgctaataccgtacggtaa
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1-2tRNA-Leu(cag)[31566,31641]
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tgagttcgaatctcaccgggagtac
1-3tRNA-Leu(gag)[31761,31835]
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cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[31836,31909]
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gggttcgaatcccgcacggtag
1-5tRNA-SeC(tca)[68508,68604]
attctggcactggtagggcgagcccaccggcgagcttcaagctgtcgct
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1-6tRNA-Pro(tgg)[92217,92291]
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caggttcgaatcctgtcaccgccac
1-7tRNA-Trp(cca)[92306,92376]
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cgattccctccaggcctgcca
1-8tRNA-Tyr(gta)[92378,92464]
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tcgggacggtaggttcgattcctcagtcggggacca
1-9tRNA-Pyl(cta)[93578,93650]
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gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[93800,93874]
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1-11tRNA-Cys(gca)[94001,94072]
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1-12tRNA-Glu(ctc)[94077,94151]
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cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[94153,94226]
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1-14tRNA-Ala(tgc)[94388,94462]
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1-15tRNA-Phe(gaa)[94652,94724]
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1-16tRNA-Val(cac)[94730,94803]
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1-17tRNA-Lys(ctt)[94923,94996]
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1-18tRNA-Glu(ttc)[95001,95077]
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1-19tRNA-Gly(tcc)[95157,95229]
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1-20tRNA-Gly(tcc)[95329,95401]
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1-21tRNA-Thr(cgt)[95461,95535]
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1-22tRNA-Thr(tgt)[95536,95608]
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1-23tRNA-Thr(ggt)[95668,95740]
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ggttcaatccccgactcagctc
1-24tRNA-Gly(gcc)[97485,97560]
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1-25tRNA-Asp(gtc)[97574,97646]
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gtatcgtaatccgtcagggtcgc
1-26tRNA-Met(cat)[97706,97778]
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ggttcgattccagggtgaggtac
1-27tRNA-Ile(gat)[97784,97858]
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ggtgttcgattcaccgagcaggtac
1-28tRNA-Arg(acg)[97952,98024]
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tgttcgattcgcgctaggggcac
1-29tRNA-Val(gac)[98067,98139]
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ggttcgaaacctcgatggacac
1-30tRNA-Arg(cct)[98313,98386]
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aggttcgaatcctctcggaggcac
1-32tRNA-Gln(ttg)[98927,99002]
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gcaggttcgagtcctgctacccatc
1-33tRNA-Arg(tct)[99006,99081]
gccctttagctcagtgacagagcggcgagcttctacctgcggggcgg
gagttcgaatcctccaggggcacca
1-34tRNA-Gln(ctg)[125659,125733]
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ggttcgaatccagggcgagcaacca
1-35tRNA-Asn(gtt)[125740,125815]
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aggttcgaatcctgccaccccagcca

>FJ230960.1 Bacillus phage SPO1, complete genome

1-1tRNA-Asn(gtt)[28208,28282]
tcctctatagctcaatggtagagcacatgactgttaatcatgggggttga
ggttcgaatcctactggaggagcca
1-2tRNA-Ser(gct)[28368,28457]
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gctttatgtccggcataggttcgaatcctatacattccgt
1-3tRNA-Arg(cct)[32596,32670]
tgcccatgtagctcagtgatagagcacgtccctcctaaggacggtgtcg
ggagttcaaatctctccatgggct

>EU710883.1 Erwinia phage phiEa21-4, complete genome

1-2tRNA-Pro(tgg)[22037,22114]
ctccgttagctcagtatggatagtaggcccgttggggcggtcgggtc
gaaggttcgaatccttcaacggagacca
1-3tRNA-Ala(tgc)[22235,22307]
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gggttcaagtccctcctgtatcc
1-4tRNA-Met(cat)[22490,22564]
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ggttcgaatcctactccgcttcca
1-5tRNA-Asn(gtt)[22573,22648]
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gggttcgagtcccaccttcccacca
1-6tRNA-Tyr(gta)[22655,22737]
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1-7tRNA-Met(cat)[22744,22817]
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gttcgaatctacccttcgcatcca
1-8tRNA-Asp(gtc)[22897,22973]
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1-9tRNA-Ser(tga)[23201,23291]
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ttaatagcgccttgagggttcgactccctctccttcgcca
1-10tRNA-Phe(gaa)[23293,23367]
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gggttcgaatcccgatagaccgcca
1-11tRNA-Lys(ttt)[23375,23450]
cgggtgtgaactcaattggcagagtgggtggctttaaccacagggttgc
agggtcgatgcctgtcacaccgacca
1-12tRNA-Lys(ctt)[23458,23534]
ggactattaactcaactggtcagagtacccgactcttaatcgggaggttc
agggttcgactccctgatagctacca
1-13tRNA-Met(cat)[23546,23619]
agtggatggcagagatggatcatgcacttcctcatcacggaagattacat
cgggtcaagtccgattaccacttc
1-14tRNA-Ile(gat)[23633,23707]
tgtgggttagcataaatggtaatgcagacggctgalaaccgtcagaagag
ggttcgataccctcacctacgacca
1-15tRNA-Gln(ttg)[23714,23789]
cggggtatggagtaattggcaactctacggtttttgaggccgtcagttt
cgggtcgaatccgaatgccccgcca
1-16tRNA-Arg(tct)[23796,23872]
gcacccttagaacaactggacagttccgctgtcttctaacagctagtta
cagggtcgagtctgtagggtgtgcca
1-17tRNA-Leu(caa)[24290,24366]
ggcgtaatatcccaattggcagaggaagcaggttcaaaccctgttcagt
tgggttcgactcccacttacgtacca
1-18tRNA-Gly(tcc)[24496,24571]
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gggttcgaatcccgttacttgctcca
1-19tRNA-Trp(cca)[24577,24652]
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agggttcgaatccctcatcccctgtc
1-20tRNA-Thr(tgt)[24663,24737]
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ggttcgaatccgtgtgggggcacca
1-21tRNA-Val(tac)[24745,24820]
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gcgttcgagtcgccttcgagtagta
1-22tRNA-Leu(aag)[24827,24904]
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gagagttcgaatctctccacagtagta
1-23tRNA-Arg(acg)[24911,24987]

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1-24tRNA-Gln(ctg)[24990,25066]

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atggttcgaatccatcacgtcctgcc

1-25tRNA-Leu(taa)[25073,25149]

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agagttcgaatctctcatcacctacca

1-26tRNA-His(gtg)[25153,25229]

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cgggttcgaatcccgctcttctcccca

1-27tRNA-Ser(gct)[25236,25328]

ggaagattaaccctaaaaggtaagggaagtgttgctaaacctcagtaa
ccgagaaatcggcgtaccagttcaagtctggtatcttctcca

>EU863409.1 Enterobacteria phage JS10, complete sequence

1-1tRNA-Arg(tct)c[68440,68515]

cgaggcatagctcagaaggaagagcaacggtcttctaaaccgtaggtcgt
aggttcgalccctactgtctcgacca

1-2tRNA-Asn(gtt)c[68520,68594]

ggatgtgtagctcagtggttagagcagttgactgttaatcaattggtccat
ggttcgaatccatgcatgtccgcca

1-3tRNA-Met(cat)c[68599,68672]

ggccctgtagctggacggtcaagcgagcgactcataatcgctggatggtg
gttcgattccaccagggccacca

>EU826469.1 Mycobacterium phage ScottMcG, complete genome

1-1tRNA-Ser(gct)[30892,30975]

ggagggtagcatctggtgatgcaggggtcctgctaaggccctacggatt
cacaccctgagtttcgattactcctccctccgc

1-2tRNA-Leu(cag)[31072,31148]

gccctgctgagcaaaactggcaaagctccgcattcagagtcgggtcatt
tccgggttcgactcccgggcagggtac

1-3tRNA-Leu(gag)[31268,31342]

gtctcttaggcaaatcgaaaagccgccatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac

1-4tRNA-Leu(caa)[31343,31416]

gccgtggtaggccatctggcgagccgagttcaagtttcggtgtttgc
gggttcgaatcccgcacggtac

1-5tRNA-Pro(tgg)[90789,90863]

cggggtgtagttcagtttgaagagcgcttggttgggaccaagtgtcg
caggttcgaatcctgtcaccccgac

1-6tRNA-Trp(cca)[90878,90948]

gggtctgtgcacagggtccccgacggtctcaaagccgaaggcgggggtt
cgattccctcaggcctgcc

1-7tRNA-Pyl(cta)[92139,92211]

gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-8tRNA-Met(cat)[92361,92435]
agcgggttagagcagctaggtagctcgccgggtcataaaccggaggacg
cgtgttcgaatcacgccaccgccac
1-9tRNA-Cys(gca)[92562,92633]
gcgcctttggcgaatggctacgtgctcggtcgaacccgagttatccc
gttcgactccgggaggcgctc
1-10tRNA-Glu(ctc)[92638,92712]
gtgccgttgagtagatggatatctgccaccctctcaagtgagatca
cgggttcaagtcccgtacggactgc
1-11tRNA-His(gtg)[92714,92787]
gtggccgtagttcagccggtagaacgtgggttgtgatccagtcgtcga
gggttcgagtcctccggtcacc
1-12tRNA-Ala(tgc)[92949,93023]
gggcctgtagctccaattggttagagcagcatcctgcaagatgacggctg
tcggttcgaatccgacctggtccac
1-13tRNA-Phe(gaa)[93213,93285]
gccgtcatagctcagttggttagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgtcggcac
1-14tRNA-Val(cac)[93291,93364]
gtccgttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-15tRNA-Lys(ctt)[93483,93555]
gccttcgtagctcagtggttagagctgtcgcctttaagcgataggctgtt
ggttcgaatccagccgggggcac
1-16tRNA-Glu(ttc)[93560,93636]
gttcgggtcggctcgtcgttatggccagtcggattttcactccggacatt
cgcgggttcaattcccgtcccgatcgc
1-17tRNA-Gly(tcc)[93716,93788]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-18tRNA-Thr(cgt)[93848,93922]
gtcgtgtagctcacctggcagagcgtcggcgtcgtatcccgaagcatc
cgggttcgagtcggacagcagcccc
1-19tRNA-Thr(tgt)[93923,93995]
gcctctgtgtccagcggcacggacatccgccttgaagcgaggacccc
cgttcgatccgggttagaggctc
1-20tRNA-Thr(ggt)[94055,94127]
gtcgggttagctcagtggttagagcgttcctctggtatgggaaagggccgg
ggtcaatcccccgactcagctc
1-21tRNA-Gly(gcc)[95450,95523]
gcgaaggtagctcagctggcagagcgccaccttgccaagtgagggtcgc
gggatcgcaacccgttcttcgctc

1-22tRNA-Asp(gtc)[95527,95599]
ggccctgtagctcagaggaagagcgccggtctgtcgaatcggaggtcgcg
gtatcgtaatccgtcagggtcgc
1-23tRNA-Met(cat)[95659,95731]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-24tRNA-Ile(gat)[95737,95811]
gcctgttagcggactggtcgtccgatccaagctgataactggcgtaagc
ggtgttcgattcaccgagcaggtac
1-25tRNA-Arg(acg)[95905,95977]
gcctctatggtccaacggatatgacgccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-26tRNA-Val(gac)[96020,96092]
gtccgtgtagctcaggggtagagcgctcgtcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-27tRNA-Arg(cct)[96266,96339]
gcctctgtagctcaacggacagagcaacgcggctctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-29tRNA-Gln(ttg)[96880,96955]
tggggtatggtggcaatctggcagtcgcccggttctgactccggagggt
gcaggttcgagtcctgctaccccatc
1-30tRNA-Arg(tct)[96959,97034]
gccctttagctcagtgagacagcgcgagcttctacctcggggcccgg
gagttcgaatcctccaggggcacca
1-31tRNA-Gln(ctg)[124908,124982]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-32tRNA-Asn(gtt)[124989,125064]
tggggtgtccgttaatcaggcaaacgagcggactgttaatccgccctgc
aggttcgaatcctgccacccagcca

>FJ822135.1 Lactobacillus phage Lb338-1, complete genome

1-2tRNA-Arg(cct)c[23807,23880]
tgttccatagaacaatggatagttaccggttcttaaaccgttaattc
cgggtcagtcggatggaaacat
1-3tRNA-Arg(tct)c[24706,24779]
gttcccatagttcaattggatagtaacatctgccctctaagcagagactc
ccagttcgagtctgggtgggaaca
1-4tRNA-Ile(tat)c[25603,25691]
tagtcctgtagcactatggcagtcaccgggttataaccgtactcctg
ataagagggttaagtgggtccgattcccaccgggactat
1-5tRNA-Thr(tgt)c[27758,27832]
tgcttcctagctcatatggtagagcatctgtttgtaatcagaaggtga
ctggttcgatcccagtaggaagcat

>FJ839692.1 Enterobacteria phage RB14, complete genome

1-1tRNA-Arg(tct)c[68093,68168]
cgaggcatagctcagaaggaagcaaggaccttctaagtcctgggtcgt
aggttcgatccctactgcctcgacca

1-2tRNA-Asn(gtt)c[68173,68247]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattggtata
ggttcgaalcctatcacgtccgcca

1-3tRNA-Tyr(gta)c[68252,68338]
ggggagttatcccgtagaggtagcggtgtggactgtaaattcattgtcat
tgcgactcgggtgggtcgactccatcactccccacca

1-4tRNA-Met(cat)c[68348,68422]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggtcaattccaccaggccacca

1-5tRNA-Thr(tgt)c[68424,68499]
gctgatttagctcagtaggtagagcaactcacttgaatgagaaggtcgg
cggttcgattccgtcaatcagcacca

1-6tRNA-Ser(tga)c[68505,68594]
ggaggcgtggcagagtggtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca

1-7tRNA-Pro(tgg)c[68596,68670]
ctccgtgtagctcagtttgtagagcgctgattgggatcaggaggtcc
aaggttcaaatccttgtatggagac

1-8tRNA-Gly(tcc)c[68681,68754]
gcggatatcgataatggcattacctcagacttccaatctgatgatgga
gttcgattctcattatccgtcca

1-9tRNA-Leu(taa)c[68760,68846]
gcgagaatggtaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgtgggttcgagtcctcacttctcgacca

1-10tRNA-Gln(ttg)c[68847,68920]
tgggaattagccaagttggttaaggcactggattttgattccagatgcaa
aggttcgagtcctttattccagc

>GQ303260.1 Mycobacterium phage ET08, complete genome

1-1tRNA-Ser(gct)[29156,29239]
ggagggtgagcatcaggtgatgcagcgagattgctaataccgtacggtaa
ccaccccgtaggttcgaatcctcctccctccgc

1-2tRNA-Leu(cag)[29432,29507]
gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt
gtgagttcgaatctcaccgggagtac

1-3tRNA-Leu(gag)[29627,29701]
gtctctgtaggcaaatcgaaaagccgcatcttgagggggtggtcgctg
cgggttcgactcccgcagagacac

1-4tRNA-Leu(caa)[29702,29775]
gccgtggtaggccatctggcgagccgccgagttcaagtttcggtgttgc
gggttcgaatcccggccacggtac

1-5tRNA-SeC(tca)[67162,67258]

attctggcactggtggcgagcccaccggcgagccttcaagctgtcgt
ggccggagaatcgaccggaacatcccgttcaacgcgaccagggcc
1-6tRNA-Pro(tgg)[90457,90528]
cggggtgtagtgaagcatcatgctggtttgggtaccagtgggtccg
gttcgagtccgggtccccgac
1-7tRNA-Trp(cca)[90967,91042]
aggggtagagccagctgggacggcagcggattccaaacccgccattgacg
gagttcgattctccgtaccctgcc
1-8tRNA-Tyr(gta)[91044,91129]
ccgggaagccatgttggttatggcaggcagactgtaaatctgtcgtctt
cggacttcgggggttcgattccctctaccggacca
1-9tRNA-Pyl(cta)[92188,92260]
gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[92410,92484]
agcgggttagagcagctaggtagctcgccgggtcatgaccggaggacg
cgtgttcgattcacgccaccgccac
1-11tRNA-Cys(gca)[92611,92682]
gcgccttggcggaatggctacgtgctcggctgcaacccgagttatcccg
gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[92687,92761]
ggtccgttgagtagatggatatctgccaccctctcaaggtggagatca
cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[92763,92836]
gtggccgtagttcagccggtagaacgtgggttgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[92999,93072]
gggcctatagctcatctggtagagcgctgccttgcaagcaggaggcggc
aggttcaagtcctgttaggtccac
1-15tRNA-Phe(gaa)[93262,93334]
gccgtcatagctcagttggtagagcaccggcctgaaaacccggaggccga
ggttcgagtcctcgtgtcggcac
1-16tRNA-Val(cac)[93340,93413]
gtccgttagctcagctggaagagcgtcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[93532,93604]
gccttcgtagctcagtggtagagctgtcgctcttaagcgataggtcgtt
ggttcaatccagccgggggcac
1-18tRNA-Glu(ttc)[93608,93683]
ggtcgggtggtctgttggcaggccggtcgggttttaccgccggtcatc
gcgggttcgattcccgtcccactgc
1-19tRNA-Gly(tcc)[93813,93885]
gcgggttgggcgaatggctcaggcaccagacttccactctggctacgca
ggttcgattcctgtcatccgctc

1-20tRNA-Thr(cgt)[93945,94018]
 gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
 cgggttcgagtcgacagcagctc
 1-21tRNA-Thr(tgt)[94027,94100]
 gccctttagctcagtggcagagcaccgacctgtgaagtcgggttgctcc
 gggttcgaltcctgtaggggctc
 1-22tRNA-Thr(ggt)[94151,94223]
 gctgatttagctcagtggtagagcgcgacttggtatgtcggaggccccg
 ggttcgatccccggattcagctc
 1-23tRNA-Gly(gcc)[95968,96043]
 gcgggttagctcagcctggccagagcatcacgttgccaacgtgaacgtc
 gcgggttcaaataccgctagccgctc
 1-24tRNA-Asp(gtc)[96057,96129]
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 gtatcgtaatccgtcagggtcgc
 1-25tRNA-Met(cat)[96189,96261]
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 ggttcgattccagggtgaggtac
 1-26tRNA-Ile(gat)[96267,96341]
 gcctgttagcggactggctgctccgatccaagctgataactggcgtgaagc
 ggtgttcgattcaccgagcaggtac
 1-27tRNA-Arg(acg)[96435,96507]
 gcctctatggtccaacggatatgacccggtctacggaaccggagatgcg
 tgttcgattcgcgctaggggcac
 1-28tRNA-Val(gac)[96550,96622]
 gtccgtgtagctcaggggtagagcgcctgctcgacacgcaggaggaccga
 ggttcgaaacctcgcatggacac
 1-29tRNA-Arg(cct)[96796,96869]
 gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
 aggttcgaatcctctcggaggcac
 1-31tRNA-Gln(ttg)[97410,97485]
 tggggtatggtggcaatctggcagtcgcccggttgaactccggaggt
 gcaggttcgagtcctgctacccatc
 1-32tRNA-Arg(tct)[97489,97564]
 gccctttagctcagtggaagagcggcgagcttctacctcgcgggccgg
 gattcgaatctctccaggggcacca
 1-33tRNA-Gln(ctg)[125485,125559]
 tgctcgttggtgtaactggcaacactacggactctggctccgtcattctt
 ggttcgaatccagggcgagcaacca
 1-34tRNA-Asn(gtt)[125566,125639]
 tggggtgtagttcaactggaagaacgctcgactgttaatcgagtagttga
 aggttcgagtccttccactccage
 >EU877232.1 Enterobacteria phage WV8, complete sequence
 1-1tRNA-Pro(tgg)[25986,26062]

ctctgttagctcagcttggttagagcgtccgtttggggcggttaaggccg
gaggttcaagtcctccaacagagacca
1-2tRNA-Glu(ttc)[26070,26147]
gttcagtagacaaaatggtaaagtcaccactcttcaaagtggtatct
gagggttcaaatcccttctggaacgcca
1-3tRNA-Met(cat)[26238,26314]
tgcgggtatagagaaaggcgtctcacatgtctcattagcatggtatcgg
caggttcgactcctgcacccgcctcca
1-4tRNA-Asn(gtt)[26398,26475]
ggtt.aggaagcacataaggtatgtcggtcgcctgttaagcgaatggca
cagggttcgaatccctgactaaccgcca
1-5tRNA-Tyr(gta)[26485,26572]
gtgtcgttatcccgtagatggtagcggtagggactgtaaatcccttgta
ttgagactcggtagggtcgactcctacacggcacacca
1-6tRNA-Asp(gtc)[26578,26655]
ggttatgtagttaatctggtaaaatactcccctgtcacgggagatgat
gagggttcgaatcccttcgtaaccgcca
1-7tRNA-Lys(ttt)[27085,27160]
ggaagtgtagcagaatggtgatgcggcagacttttaatctgacaggcgat
gggttcgaatccctccacttctacca
1-8tRNA-Met(cat)[27165,27241]
ggttcagtcgcagataaggtaatgcaagggtctcataagccctatgaatg
tgggttcgattcccatctgaacctcca
1-9tRNA-Ile(gat)[27243,27318]
gctggtatagttaagaagggtataacactcccctgataagggaacatcgg
tggttcgattccacctaccagtacca
1-10tRNA-Trp(cca)[27798,27868]
aggggtgagctatggcagcaatagagtctccaaaattcttgattagagt
cgaatctctacaccctgccca
1-11tRNA-Ser(tga)[28301,28390]
ggtaggtagcggctaattggcagccaaacagtcttgaaaactgttgccact
gtagagatacggtaggggttcgactccttacttaccgcc
1-12tRNA-Leu(tag)[28645,28721]
gcacctatagcccaactggtagaggcagcagacttagaatctgctcagtg
tgagttcgaatctctctaggtgtacca
1-13tRNA-Lys(ctt)[28729,28804]
gcaggtgtagcaaatggttatgcggctgactcttaatcagtaagacgat
gggttcaattccctccacctgtacca
1-14tRNA-Ala(tgc)[28811,28886]
ggggtcatagtttatatggttaaaatcgagttttgcaaacttggaact
gagttcaattctcagtgactccacca
1-15tRNA-Gly(tcc)[28893,28967]
gcatccatagttaaacgggaaaattacagtcttccaaactgaggttgag
ggttcgattccctctggatgtcca

1-16tRNA-Thr(tgt)[28975,29050]
gctcctatcgataattgggtattacgggtgccttgaagcaacttatca
gggttcgagtccttgtgggagcacca

1-17tRNA-Val(tac)[29147,29221]
actcgcttagtttatatggtaaaacatcacccttacaagatgaagaaaaa
ggttcaagtcctttagtgagtacca

1-18tRNA-Leu(caa)[29223,29300]
gttccagtatcccaattggcagaggatgcaagctcaaacctgtattagt
gacggttcgaatccgtcttgaacacca

1-19tRNA-Arg(acg)[29306,29381]
gcaggattagttcaaatggaaagagcaacagctctacgaagctgttaatag
gggttcgaatcccttatcctgcgcca

1-20tRNA-Gln(ttg)[30204,30279]
aggggattagttacaagggtaaaacctcggctcttgaaatcgaagaagt
tggttcaattccaacatccccgccca

1-21tRNA-Leu(taa)[30282,30360]
gctccattactccaattggcagagagccagactaaaatctgtgttatg
tatcgggttcgaatccgatalggagtacca

1-22tRNA-Gln(ctg)[30366,30441]
agcggtatagcataactggcaatgcagcagctctgaagctgtcctatta
aggttcaaactcttatgccgtgccca

1-23tRNA-His(gtg)[30473,30548]
gtggccttatcataaatggtaatgacccatgctgtgaacatgggtctatac
gggttcaaactccgtaggtcacccca

1-24tRNA-Phe(gaa)[30555,30630]
agtccaagtagcttatatgggttaaagcgcgtgtctgaaaaacatgagaag
agggttcaaactccactggactacca

1-25tRNA-Ser(gct)[31384,31476]
ggaagattaaccctaaaaggtaagggagcagtttgctaaactgccagtag
ctgagaaatcgggtgtaccagttcaagtcgttatcttctcca

1-26tRNA-Cys(gca)[31481,31556]
gaatccgtgacagaaacggctatgtgcctgtctgcaaacaggtttataa
gggttcgagtccttcggattctcca

>FM207411.1 Synechococcus phage S-RSM4 complete genome

1-1tRNA-Gly(tcc)c[29459,29530]
gcggagtagttcagtggtagaacgctatccttccaagttagatgtcgtc
ggttcgaatccgatactccgct

1-2tRNA-Pro(tgg)c[31213,31288]
tcggggtgtagctcagcttggtagagcgcgctcttgggaggcgatgcc
gtaggttcgaatcctatcaccccgat

1-3tRNA-Ser(tga)c[31291,31376]
ggagagtggtcagtggtgaaggctctagtcttgaaaactagcgaggt
gaaagcctccgtgggttcgaatcccacctctccgc

1-4tRNA-Val(tac)c[31852,31923]

gggcgattagcgagcggtagcgagtgctttacacgaattggcggg
ggttcgaatccctcatcgcca

1-5tRNA-Leu(tag)c[31926,32008]

tcggtatggcggaattggtagacgcgtgggttaggtccagtgctcct
tgcgacgtggaggttcaagtcctctaccgaca

1-6tRNA-Arg(tct)c[32009,32085]

gactcaatagctcagctggatagagcaactgccttctaagcagtcggtcg
taggttcgaatcctacttgagtcgcca

1-7tRNA-Tyr(gta)c[176122,176203]

gggtaggtgtccgagtggttaatggaggcggactgtaaatccgctggctc
tgctacgggggttcaaatccctccctgcca

1-8tRNA-Asn(gtt)c[176206,176279]

ttggcgtgtagctcaatggcagagcaggagctgtaactctctggttc
aagttcgagcttgccacgccagt

1-9tRNA-Ala(tgc)c[176306,176378]

ggggaattagctcagttggtagacacctgcttgcaagcaggctgtcag
gagttcgagtcctctattctcca

1-10tRNA-Thr(tgt)c[176379,176455]

gccactatagctcagctggatagagcaacggtttgtaaacgtaggtcg
tcggttcaagtcgacttggtgctcca

1-11tRNA-Asp(gtc)c[176458,176533]

tggggtgtagctcagtcggttagagcgctgcctgtcacgcaggaagtc
gagggttcaagtccttcagtcctcgt

1-12tRNA-Leu(taa)c[177356,177440]

gggacggtggtggaattggtagacacaccagacttaaaatctgttgattg
taaagatcgtgcgggttcaagtcctcgtcctca

>GU295964.1 Klebsiella phage KP15, complete genome

1-1tRNA-Met(cat)[49401,49477]

ggccccttagctcaataggtagagctaatactcataatgggttaggtcc
cggttcaagtcacgggagggccacca

>HM452126.1 Aeromonas phage phiAS5, complete genome

1-1tRNA-Ala(cgc)c[181347,181421]

acgcgattagctcagtgaggagagcgctctgatcgagagaagtatcggg
accggttcgaatccggtatagtgtg

1-2tRNA-Met(cat)c[189405,189479]

ggccccgtaacataagggtaaatgtgctcgctcataagcgaagaaaagc
ggttcgagtcgctcggggccacca

1-3tRNA-Leu(tag)c[189963,190046]

gcggatgtggcgaaattggcagacgcactagattaggttctagcgcct
aggcgtgtcggttcgagtcgacctccgacca

1-4tRNA-Ser(gct)c[190053,190140]

ggagaaatgacagagaggccgaacgtagcggattgctaattcgtaggccc
gcaagggtccgtgggttcgaatcccactttctcctcca

1-5tRNA-Ser(tga)c[190949,191042]

ggaaggtaacccgatagccggcgacgggagcggcttgaaaaccgtcga
gggttaacagcccctgtgagttcgaccctcacacctccgcca
1-6tRNA-Gln(ttg)c[191317,191392]
aggggtatcgccaagttggaaaggcaacggattttgattccgtcattcgc
tggttcgagtcagctacccccgcca
1-7tRNA-Pro(tgg)c[191652,191726]
ctcgggttaggcaagtggatgtcgcctggttgggaccaggtcgtcag
tgttcgattcactacccgagacca
1-8tRNA-Lys(ttt)c[191862,191937]
gcgccgttagcttagttggtagagcatcggacttttaacccgaggtcga
tggttcgagtcacacggcgaccca
1-9tRNA-Trp(cca)c[191944,192017]
agggcgtagcaaatcggttatgcggcgattccaaatccgttgaggtgg
gttcgactcctaccgccctgcca
1-10tRNA-Cys(gca)c[192845,192919]
gcgcaggtagccaagcggttaaggcaagtattgcaaatcactttatcgtc
tgttcgatccagatcctgtgtcca
1-11tRNA-Gly(tcc)c[192927,193000]
gccttcttagtttaattgtaaaaccactgcctccaagcagacgtcgtgg
gttcgattccacagagggtcca
1-12tRNA-Ala(tgc)c[193012,193087]
ggggatatagtcagttgggagagcactagcctgcaagctgggggtcgt
gggttcgagtccttattgtctccacca
1-13tRNA-Asp(gtc)c[193373,193447]
ggtgcattagtagtataatggctattatctgactgtctatcacaggatac
ggttcgattcccgtatgtaccgcca
1-14tRNA-Tyr(gta)c[193571,193662]
ggagacgctgcaatgacgggtgattgcaccagactgtaaatctggcccc
acagggtgaacattgtaggtcgaatcctaccggctccacca
1-15tRNA-Met(cat)c[193686,193760]
agcgggatggagaagtctggaatctcgtagcctcataagctaaaggtcg
gtggttcaaatccacctcccgttc
1-16tRNA-Glu(ttc)c[193781,193877]
tctccgttcattacacggctaggatatcgcccttcacggctaggatc
gcccttcacggcgagtagcacgggtcgaatcccgtagcgagaacca
1-17tRNA-Met(cat)c[194416,194490]
ggtgcattagctcagtggttagagctcgggttcatacggcgtcggcgt
agttcaaatctaccatgcaccacca
1-18tRNA-Phe(gaa)c[194703,194778]
ggacctgtagctcagatggtagagcaccgattgaaaatccgggtgtcgt
cagttcgatcctgaccgggcccacca
1-19tRNA-His(gtg)c[194784,194859]
gtgacggtagttcagttgtagaactccaggtgtgatcctggtatcac
gggttcgaaacccgtccgtcacccca

1-20tRNA-Thr(tgt)c[194940,195013]
 gctcttatagttcagtggcagaacaagtgattgtaaccattagacctca
 gttcgattctgagttggagcacca
 1-21tRNA-Ile(gat)c[195020,195094]
 agtcccgtagctcagaggtagagcgccgtgctgataacgcggatgtggat
 gggtcgataaccattcgggactacca
 1-22tRNA-Asn(gtt)c[195770,195852]
 ggaggtgtggctcaaaggtgagcggcagactgttaatctcgggtaata
 accctatgttgggtcgagccaacctcctccgc
 1-23tRNA-Leu(taa)c[199140,199223]
 gtgggtatggcgtaatgttagccgcaggagactaaaatctcccgttc
 tggcgtgtgggtcgagtcctccactaccgcacca
 1-24tRNA-Leu(caa)c[199229,199313]
 gggagattggcgtaatggcagccgcagtagattcaaatctaccgacga
 aagtcgtaccggttcgagtcgggtatctctacca
 1-25tRNA-Arg(tct)c[199406,199480]
 cggggcgtagctcagttggatagagcatgtgccttctaagcacacggtcg
 ctggttcgagcccagtcgcctcggc
 >GU911519.1 Acinetobacter phage Acj61, complete genome
 1-1tRNA-Trp(cca)c[79124,79194]
 aggtcgctagtgaatggtagcagcgggctccaaccccgtaatcttc
 gttcgaatcgaagcgattct
 1-2tRNA-Phe(gaa)c[79201,79276]
 gcacgagtaactcagttgtagagtggtgcctgaagagcagcaggtcac
 atgttcgaatcatgtctcgtgcacca
 1-3tRNA-Met(cat)c[79283,79356]
 cgcgatatggtgtaaaggtgcacatagggtcataacccaaaggtcca
 gttcgagctcggatcgcctacca
 1-4tRNA-Gln(ttg)c[79363,79436]
 tgtcgcatggtgaatggtagcaccacagaattgactctgttagtaaag
 gttcgatcccttttgcgactcca
 1-5tRNA-Pro(tgg)c[79527,79603]
 ctctctatagggcagtcgtgtagcctacttcttttggaagaagatgtcg
 ttggtcaaactcaactaggagacca
 1-6tRNA-Ile(gat)c[79660,79735]
 cgtcgagtagctcagttgtagagcaacggaccgataatccgcaggtcac
 atgttcgaatcatgtctcgacgacca
 1-7tRNA-Ser(tga)c[79736,79830]
 ggtgaagtggcagagtcgtggttattgcagtagtcttgaaaactaccgtc
 tcatagtatatggggccctgggttcaaactccagtttcacctcc
 1-8tRNA-Asn(gtt)c[80035,80110]
 tcctcagtagctcagttgtagagcagcagactgttaatctgtgggtcac
 acgttcgatccgtgtctggggagcca
 1-9tRNA-His(gtg)c[80144,80218]

tggaccatgggtgaatggtagcaccgcgatttggatgctgtagtctc
agttcgaatctgtgtgtccaacca
1-10tRNA-Glu(ttc)c[80227,80302]
gctcttatcgtctagtcggttaggacgtcagcctttcacgttgaaaactc
gggttcaagtcgccgataagagtacca
1-11tRNA-Tyr(gta)c[80309,80394]
ggggacgtaggaaaattggtaaccccatcggactgtaaatccgacgcaa
aagcatctgtgagttcaagtctaccggccccacca
1-12tRNA-Thr(tgt)c[80410,80481]
tctggcatcatatagtggtattatgctggtttgtactccagtcaccgag
tttcgattactcgtgccagaac
1-13tRNA-Cys(gca)c[80595,80670]
ggcgttggtagaatggttatacggcgattgcaaaccgctcgatgc
aggttcgagtcctgttgacgcctcca
1-14tRNA-Arg(tct)c[80679,80755]
gtctcgtggccgagttggattaggcatcgtagtctattgcgactata
tgagttcgaatctcatgcggggctcca

>FJ373894.1 Shigella phage phiSboM-AG3, complete genome

1-1tRNA-Ser(tga)[137688,137767]
tggaggatgatggaagggtagacattccctgaggggatggcggcagccg
ttgaaggttcgaatccttctcctccaacca
1-2tRNA-Asn(gtt)[138197,138272]
gacgatgtagttcagtcggtagaacggcggctgttaaaccgtatgtcgc
aggttcaagtcctgccatcgtcgcca
1-3tRNA-Tyr(gta)[138530,138613]
gtgagtggtggcagagcggtcgaatgcaggagactgtaaatctccccgtaa
cagcgcgggtggttcgaatccatccactcacacca
1-4tRNA-Ser(gct)[138924,139012]
ggaaggttccccgagaggttaagggactcgactgtaaatcgagtggggc
tttagccccgaaggttcgaatccttcacctccgcca

>GQ981382.1 Shigella phage SP18, complete genome

1-1tRNA-Arg(tct)c[69216,69291]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
aggttcgatccctactgtctcgacca
1-2tRNA-Asn(gtt)c[69298,69370]
ggatgcatagctcagtgtagagcagttgactgttaataattgtccat
ggttcgaatccatgtgtgccgc
1-3tRNA-Met(cat)c[69375,69449]
ggcccttagctcaatgggagagctgtcagctcataactgataggtagct
ggatcgaaaccagcaagggccacca

>HM004124.1 Acinetobacter phage Acj9, complete genome

1-1tRNA-Trp(cca)c[78801,78872]
gggtcgatagtgtagttggaacactgcggattccaaatccgccatcctg
ggttcgagtcctagtcggcgcc

1-2tRNA-Phe(gaa)c[78879,78954]
ggggatttagctgagacagattagcgccctgaagagcaggattagat
tggtgcaattccaatagtccccgcca
1-3tRNA-Met(cat)c[78956,79030]
ggtcattagctcagtggtagagcagaggattcatattcctcgtgcaca
tggtcgaatcatgtatgcacctcca
1-4tRNA-Met(cat)c[79037,79114]
tgcgaagtattttcagtcctgtagaaaagagaggttcataacctcttatgc
gctcgttcgaatcgggccttcgctcca
1-5tRNA-Asp(gtc)c[79122,79197]
agactattagctcaatcgggagagcactggcctgtcacgccagaggtagc
gagatcgaaactcgtatagtctgcca
1-6tRNA-Glu(ttc)c[79204,79279]
gctctaactcgtctagttggacaggacgctagcctttcacgttagaaaccg
gagttcgaatctccgttagagtacca
1-7tRNA-Arg(tct)c[79288,79363]
gcgtcattggccgagtggttaggcacggaattctagtcgactcacat
gggttcgattcctatatggcgctcca
1-8tRNA-Tyr(gta)c[79372,79457]
ggtagtggtgggtgttggtcaaaccatcgactgtaactccgacgct
aacgctatctaggttcgaatcctagcgtcaccacca
1-9tRNA-Pro(tgg)c[79465,79543]
ccgtgtgtgactggagcttggtatcagtccttgaggcgagaata
cgtaggttcaaatcctaccgcacggacca
1-10tRNA-Ile(gat)c[79603,79678]
cgtcgaatagctcagttggtagagcaacggaccgataatccgcaggtcgc
tggttcgaatccagcttcgacgacca
1-11tRNA-Ser(tga)c[79684,79779]
ggtagagtggcagagctcggcttattgctccggtctgaaaaccggcgat
ccattgcaaaatgggtccgtgggttcaaatccacctctatctcca
1-12tRNA-Asn(gtt)c[79787,79862]
tcctcgatagctcagttggtagagcagcagactgttactctgtttgtccc
acgttcgaaccgtggtcggggagcca
1-13tRNA-Lys(ttt)c[79870,79945]
tggacgttagctcagttggtagagcagaggatttttaacctaagggtcaa
tggttcgaaccattacgtccaacca
1-14tRNA-Thr(tgt)c[79955,80030]
gccatcatagctcagttggtagagcagcggttttgaatccgaaggtcgt
aggttcgattcctactgatggcacca
1-15tRNA-Gly(tcc)c[81552,81628]
gcggattagctcagttggttaagagcgtcgtcctccaagtcgaaagcca
tcggttcgagtcgatatgccgctcca
1-16tRNA-Cys(gca)c[81632,81707]
agtcgatggcagaatggtcatcggttgattgcaaatccacgtcaatat

gggttcgagtcgccattcgacttcca
1-17tRNA-Met(cat)c[81715,81790]
gggcctttagctcaattggcagagcagcccactcataatgggttggttt
cggttcgagtcggaaggccacca
1-18tRNA-Pyl(cta)c[82721,82793]
cgctcagtaggttagtggtagacttacagactctaaatctggatgcaacg
gttcgaatccgttctgagtacc
1-19tRNA-Tyr(gta)c[82816,82908]
cggatgatgagctagttggttaagcttatgatgatgtacacatcatgaaa
acgggtactcctgttgcacagttcgaatcgggtattatcgt

>HM071924.1 Enterobacteria phage IME08, complete sequence

1-1tRNA-Arg(tct)c[69402,69477]
cgaggcatagctcagaaggaagagcaaggaccttaagtctgggtcgt
aggttcgatccctactgtctcgcca
1-2tRNA-Asn(gtt)c[69482,69556]
ggatgtgtagctcagtggtagagcagttgactgtaataatgggtccat
ggttcgaatccatgcatgtcccca
1-3tRNA-Met(cat)c[69561,69634]
ggcctgtagctggacggtcaagcagcgactcataatcgctggatggtg
gttcgattccaccaggccacca

>HM134276.1 Enterobacteria phage RB16, complete genome

1-1tRNA-Met(cat)[49781,49857]
ggccctttagcttaattggtagagcgggtgactcataatcgcgcggttg
ctggttcgaatccagcagggccacca
1-2tRNA-Gly(tcc)[49863,49938]
gcaggtgtagttcaattggtagaatatctggttccatccagattgtga
gggttcgagtccttcacctgtcca

>GU323318.1 Enterobacteria phage CC31, complete genome

1-1tRNA-Gln(ttg)c[69064,69137]
tggggtatagccaagttggttaaggcagtagattttgattctacgattccc
tggttcgagtcagggtacactagc
1-2tRNA-Met(cat)c[69144,69220]
tcggggttaacttcagttggtagaatgacgggtcatatcccgttacgcg
atggttcgagtcacatcccccctcca
1-3tRNA-Asp(gtc)c[69341,69416]
ggacctatagtttcagcggtgaaaatactgcctgtcacgtgagagtcac
gggttcgaatcccgttaggtccgcca
1-4tRNA-Asn(gtt)c[69659,69743]
gggtcgttggtgagagggttaagcggcgactgtaataccgtgtcagaaa
tgactaggcaggttcgatactgcacgacccgcca
1-5tRNA-Glu(ttc)c[69749,69823]
tctccgttcgtctatcggttaggacgcccgtttcacgtcgaaagaag
agttcaattctcttacggagaacca
1-6tRNA-Lys(ttt)c[69825,69902]

aggacgtagctcagttggttagagcatccgacttttaacggaatgctg
atgggttcaactccctcacgtcctacca
1-7tRNA-Ile(gat)[69941,70016]
gggaatatagctcagttggttagagcaaacgaccgataatcgttaggtcac
tggttcgagtcagttattcccacca

>HM452125.1 *Aeromonas* phage phiAS4, complete genome

1-1tRNA-Leu(taa)[102155,102239]
gcaagtatggtggaattggtataactggaggcttaaacctcccgcctt
cgggattgtgggttcgagtcacctacttgcacca
1-2tRNA-Ser(tga)[102431,102524]
ggaagattggcccgagttggtttaaggcaccggtcttgaaaaccggcgat
cgtaggaatacggatccatccgttcgaatcgatatcttctcca
1-3tRNA-Asn(gtt)[102693,102775]
ggtgatgtagcataacggtcatgcggccggctgtaaccggtgaggaaac
tctacgttggttcgactccaaccatcacgcga
1-4tRNA-Tyr(gta)[102789,102871]
ggaacgttcgggtaatggtatcccaagcggctgaacccgctcgcctctg
gcattcttggttcgagtcgaaggcgttcacca
1-5tRNA-Lys(ttt)[103428,103503]
gcatctctaactcaattggtagtagcggacctttaatccgtcaagtct
gagttcgagtcaggggatgcacca
1-6tRNA-His(gtg)[103793,103867]
gtgacctagtagtaatggtagctatcctggatgtgacccaggagtagc
ggttcgaaccccgtaggtcaccca
1-7tRNA-Gly(tcc)[103880,103955]
gcgggtaagggtttatggatacatgctagcctccaagcttgagtagac
cggttcgataccggctacccgctcca
1-8tRNA-Pro(tgg)[104200,104274]
ctcagcgtaggcaagtgtgtatgtcgttcggttgggacggaatttcggg
tgttcgattcaccccgctgagacca
1-9tRNA-Thr(tgt)[104910,104985]
gccggttagctcatctggtagagcacagccttctaaccgtggggtggt
ccgttcgagtcggacaatcggcacca
1-10tRNA-Trp(cca)[105350,105425]
atgacattggtgttagcggtagcatgccggtctccaaaaccgtgcggcca
gggttcgaatccttgatgtcatgcca
1-11tRNA-Ile(gat)[105428,105503]
agtggattagctcagtaggttagagcactcgaccgataatcgagagcgcat
tggttcgatcccaatatccactacca
1-12tRNA-Ser(gct)[105512,105599]
ggagaagtggatgagcggctgaaatcgcttccctgctaaggaagtaaacc
gaaaggtttcgagagttcaaattctctcttctccgcca
1-13tRNA-Asp(gtc)[105677,105750]
ggagccatagttatttggttaaaatagtcacctgtcacgggacagcacc

gagttcgatcctcggaggctccgc
1-14tRNA-Met(cat)[105763,105839]
tgcgatgtagaggaggtcgtcctcgtcgggctcatatcccgaatca
gcggttcgaatccgctcatcgcttcca
1-15tRNA-Met(cat)[106042,106116]
ggccctgtagctagacggtcaagcaggcggctcataaccgctcgtagta
ggttcgattcctaccagggtcacca
1-16tRNA-Arg(tct)[106685,106761]
ggctcttagctcagttggatagagcagcggccttctaagccgagggtca
ttggtcaaataccaatagggactgcc

>HM032710.1 Acinetobacter phage Ac42, complete genome

1-1tRNA-Thr(tgt)c[79430,79505]
tccgaattagctcagttggtagagcagtggtttgtaatccaaaggtcat
ccgttcgagtcggatattcggaacca
1-2tRNA-Trp(cca)c[79609,79682]
aggctattggtgtaatggcagcacagcgggctccaacccgtagtcaga
gttcaaatacttgggtggcctgcc
1-3tRNA-Tyr(gta)c[79806,79891]
gtgcatcgtcgggttgggtcaaaccagcggactgtaactccgccacg
aaagttatctgtgttcgaatcacagggtgcacacca
1-4tRNA-Ser(tga)c[79897,79987]
ggaagagtaaaccaagtcggtctacgggtcgtgcttgaaaacagttg
gtgtcacagccgtgtgagttcaagtctcacctcttcgccca
1-5tRNA-Arg(tct)c[80411,80487]
ccgctagtagctcagatggatagagcatccgcttctaagtggtgta
ctggttcgagtcagtttagcggacca
1-6tRNA-Met(cat)c[80657,80731]
gggcctataactcaatagtagagtaccgatctcataaatcggaggattca
ggagcgtaacctgttgggccacca

>HM563683.1 Enterobacteria phage vB_EcoM-VR7, complete genome

1-1tRNA-Arg(tct)c[66571,66647]
cggggtgtaactcaattgtatagtagcggctcctctaaaccgcaggtta
aaggttagaatccttcaccccgacca
1-2tRNA-Met(cat)c[66652,66726]
ggccctttagctcaatgggagagctgtcagctcataactgataggtagct
ggatcgaaaccagcaagggccacca

>GU071095.1 Synechococcus phage S-SM2, complete genome

1-1tRNA-Leu(taa)[22309,22394]
tgggagcgtggcggaatcggtagacgcaccagacttaaatctgttgaga
attatctcgtgggggttaagtcaccccgctcctat
1-2tRNA-Thr(tgt)[22699,22772]
gccaaactagctcagttggatagagcagggtttttaaagctcaggtca
tcggttcaagtcgatagttggct
1-3tRNA-Ala(tgc)[129310,129382]

ggggttatagctcaactggtagagcgctgcttgcacgcaggaggttg
gggttcgagtcgccataactcca

1-4tRNA-Arg(tct)[140954,141029]

gactcagtagctcagttggatagagcaactgccttctaagcagtcggtcg
taggttcgagtcctacctgggtcgcc

1-5tRNA-Gly(tcc)[141032,141103]

gcgggtgtggtgtagcggtaacatgcgagcctccaagctctgtcacgg
gttcgatccccgtcacccgctc

1-6tRNA-Asn(gtt)[141254,141328]

ttctcagtagctcagcggcagagccgacgactgtaatcgtctggtcgt
aggttcaaatcctacctggggagtc

1-7tRNA-Val(tac)[141330,141403]

tgcttgcttagctcagaggtagagcatctcgttacaccgagcggtcgg
cggttcgatcccgctcagcaagcat

1-8tRNA-Ser(tga)[141678,141764]

ggaagagtggtcgagtggttatggcactggcttgaaaaccagcgaggg
tgcaagttctccgtgggttcaaatccacctcttccg

1-9tRNA-Pro(tgg)[142214,142287]

cggggtgtagctcagttggttagagcactcgcttgggagcgagtgccg
taggttcaaatcctatcaccccgga

1-10tRNA-Ile(tat)[142480,142553]

gggactgtcgctaacggttaagcccactgctataacggtgtgacctg
ggttcaactcccagcagtcctacc

1-11tRNA-Met(cat)[142555,142629]

tggaggattagcaatctggtgaatgcagaaactcataattgcctaagg
tgagttcgatcctcacatcctctat

>GU071099.1 Prochlorococcus phage P-RSM4, complete genome

1-1tRNA-Leu(taa)[22119,22203]

gggagtgtggcggaatcggttagacgcaccagacttaaaatctgttgggca
tgtgcccgtgagagttcaagtcctctactcctac

1-2tRNA-Met(cat)[109227,109301]

tgagggtgtagcaatctggtgaatgcaccgaactcataattcggctaagg
cgagttcgatcctcgccacccttat

1-3tRNA-Arg(tct)[165836,165910]

tgggacagtagctcagcggaaagagcaactgccttctaagcagtcggtcg
taggttcaattcctacctgtctcgt

>GU071098.1 Synechococcus phage S-SSM7, complete genome

1-2tRNA-Gly(tcc)[151563,151633]

gcggatgtagttaatggtaaaatacaggttccaacctctgtcctca
gttcgattctgagtatccgct

1-3tRNA-Ile(tat)[216422,216494]

gggactatcgcatattggttaatgccctctgctataacggagtgaaccg
agttcaattctcggtagtcctac

1-4tRNA-Thr(tgt)[216497,216572]

gccactttagctcagttggatagagcaacgcatttgaatgcgtaggtcg
tcggttcaagtcgacaagtggtcc
1-5tRNA-Arg(tct)[216575,216650]
gactcaatagctcagttggatagagcaactgccttctaagcagtcggtcg
taggttcgagtcctacttgagtcgcc
1-6tRNA-Leu(taa)[216652,216737]
tgggagtggtggaatcggtagacacaccagacttaaaatctgttgaca
gcaatgtcgtgggggttcaagtccccccactcccat

>FQ482083.1 Erwinia amylovora phage phiEa104 complete genome

1-2tRNA-Pro(tgg)[22026,22103]
ctccgtttagctcagtatggatagagtaggccgttggggcggtcgggtc
gaaggttcgaatccttcaacggagacca
1-3tRNA-Ala(tgc)[22224,22296]
gggtcagtagcttaattgggaaagcatctcacttgcaatgagaaggatga
gggttcaagtccctcctgtatcc
1-4tRNA-Met(cat)[22479,22553]
agcgggatggagcagtggtagcttccagttcattatctggaggtcgtg
ggttcgaatcctactcccgttcca
1-5tRNA-Asn(gtt)[22562,22637]
gggtttgaagcacatatggatgtcggctggctgtaaccagatggtagt
gggttcgagtcacaccttcccacca
1-6tRNA-Tyr(gta)[22644,22726]
ggcctatggcagagatggatcaatgcagcggctgtaaaaaccgccccgaa
aggttactggttcgagtcagttaggcgacca
1-7tRNA-Met(cat)[22733,22806]
tgcgaagtagtgaaatggcatcactggttcattatccggttaggca
gttcgaatctgcccttcgcatcca
1-8tRNA-Asp(gtc)[22886,22962]
ggggatgtggcagacttggttaattgtaccgactgtctatgcggaatg
agggttcaaatcccttcctcgcga
1-9tRNA-Ser(tga)[23191,23281]
ggaaggcgaaatcgactggcgacgaaaacggtcttgaaaaccgccgagcg
ttaatagcgcttgagggttcgactcccttccttcgcga
1-10tRNA-Phe(gaa)[23283,23357]
ggtctaattagcttatatggtaaagcaacggtctgaaaagccgtggaaca
gggttcgaatcccgatagaccgcca
1-11tRNA-Lys(ttt)[23365,23440]
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aggttcgatgcctgtcacaccgacca
1-12tRNA-Lys(ctt)[23448,23524]
ggactattaactcaactggtcagagtaccgactttaatcgggaggttc
agggttcgactccctgatagctacca
1-13tRNA-Met(cat)[23536,23609]
agtggatggcagagatggatgcacttccttcatacgaagcctacat

cggttcaagtcgattaccacttc
 1-14tRNA-Ile(gat)[23623,23697]
 tgtgggtagcataaatggtaatgcaaacgcctgataagcgtagaagag
 ggttcgataccctcacctacgacca
 1-15tRNA-Gln(ttg)[23704,23779]
 cggggataggagtaattggcaactctacggttttgaggccgtagttt
 cggttcgaatccgaatgccccgccca
 1-16tRNA-Arg(tct)[23786,23862]
 gcacccttagaacaacggatagttcccctgtcttctaacagttagta
 caggttcgaatcctgtaggggtgacca
 1-17tRNA-Leu(caa)[24280,24356]
 ggcgtaatatccaattggcagaggaagcaggttcaaaccctgttcagt
 tgggttcgactcccacttacgctacca
 1-18tRNA-Gly(tcc)[24487,24562]
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 ggggtcgaatcccgttacttgctcca
 1-19tRNA-Trp(cca)[24568,24643]
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 agggttcgaatccctcatcccctgtc
 1-20tRNA-Thr(tgt)[24654,24728]
 gcctccatcatataagggtattatgcctgtttgtaatcaggtcatcgc
 ggttcgaatccgtgtgggggcacca
 1-21tRNA-Val(tac)[24736,24811]
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 gcgttcgagtcgccttcgagtagacca
 1-22tRNA-Leu(aag)[24818,24895]
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 gagagttcgaatctctccacagctacca
 1-23tRNA-Arg(acg)[24902,24978]
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 tgggttcgaatcccaaagggttcca
 1-24tRNA-Gln(ctg)[24981,25057]
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 atggttcgaatccatcacgtcctgcca
 1-25tRNA-Leu(taa)[25064,25140]
 aggtgattacccaattggcagaggtaggagctaaacctccgatgttg
 agagttcgaatctctcatcacctacca
 1-26tRNA-His(gtg)[25144,25220]
 gaggttggtatcataaatggataatgaccctgactgtgaatcaggctctatg
 cgggttcgaatcccgtccttctcccca
 1-27tRNA-Ser(gct)[25227,25319]
 ggaagattaaccctaaaaggtaagggaagtgttgctaaactcagtaa
 ccgagaaatcggcgtagcagttcaagtctggtatcttctcca

>FQ312032.1 Salmonella phage Vi01 complete sequence

1-tRNA-Met(cat)[137231,137306]
ggccccgtagctcagtggttagagcagtcgactcataatcgattggtcgc
tggttcaagtcagccagggtcacca

1-2tRNA-Asn(gtt)[137626,137701]
gacgatgtagttcagtcggtagaacggtagctgtaatccatatgtcgc
aggttcaagtcctgccatcgtcgcca

1-3tRNA-Gln(ttg)[138089,138164]
aggagcatagccaagttggttaaggcagtggtttgatcccatgatctc
aggttcaaatcctgatgttccttcca

1-4tRNA-Tyr(gta)[138314,138395]
gtgagtggtggcagagcggtcgaatgcgcctgactgtaaatcaggtatccc
acgcggtggttcaaatccatccactcacacca

1-5tRNA-Ser(gct)[138472,138560]
ggaaggtgcccagaggtttaagggactcgactgtaaatcgagtggggc
tttagccccgaaggttcgaatccttcaccttcgcga

>AP011617.1 Thermus phage TMA DNA, complete genome

1-tRNA-Thr(tgt)[51806,51881]
ggcctcgtagctcaacaggaagagcacccgccttgaagcggggggtgt
gggttcaaatcccaccgggcctcca

1-2tRNA-Met(cat)c[119137,119213]
ggggcgtagctcaagcggtagagcggtagctcataaccgattggttg
taggttcgagtcctacacccccacca

1-3tRNA-Arg(tct)c[119226,119302]
gaggggttagctcaacaggatagagcaaggccttctaagccctaggttg
caggttcaagtcctgcacccctcgcca

>HM114315.1 Acinetobacter phage 133, complete genome

1-tRNA-Trp(cca)c[65864,65935]
gggtcgtagttagttggaaacactgcggattccaaatccgcatcgag
ggttcgagtccttcacggcgcc

1-2tRNA-Met(cat)c[66679,66754]
ggtagtttagctcagtagtagagcagcggaatcataatccgtaggtcgg
tggttcgagtcaccaattaccacca

1-3tRNA-Met(cat)c[66755,66831]
tgcgaggtaactcagcctggtagaatgagaggctcataacctcttacgc
gcacgttcaaatcgtcctcgttcc

1-4tRNA-Asp(gtc)c[66937,67012]
agattcgtagctcaatcggaagagcacccgcctgtcacgaggaggtagc
gggatcgaaacccgtcgggtctgcca

1-5tRNA-Gln(ttg)c[67251,67324]
tgtcgcatggtgaacggtagcaccacagaattgactctgtagtaaag
gttcgattccttttgcgactcca

1-6tRNA-Pro(tgg)c[67417,67493]
ctctcattagggcagtcgtgtagcctacttctttggaaagaagatgtcg
ttggttcaaatccaacatgggagacca

1-7tRNA-Ile(gat)c[67500,67575]
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 tggttcgaatccagcctcgacgacca
 1-8tRNA-Ser(tga)c[67825,67916]
 ggtaaggtggcagagtctggcttattgcggtggtcttgaaccactgac
 gctttcgggcgtccctgggttcgaatcccagttctacctcca
 1-9tRNA-Asn(gtt)c[68224,68299]
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 acgttcgaaccgtacctggggagcca
 1-10tRNA-Thr(tgt)c[68306,68381]
 gccgttatagctcagatggttagagcaggcgatttgaatcgtcaggctct
 gggttcgaatcctagtgcgcacca
 1-11tRNA-Glu(ttc)c[68383,68458]
 gttcatatcgtccagcggcttaggacgccagcctttcacgttggtaaccg
 gggttcaatccccgtatgaacacca
 1-12tRNA-Tyr(gta)c[68460,68544]
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 aagcactgaccgttcgactcggctccacactcgcca
 1-13tRNA-Arg(tct)c[68572,68647]
 ccctctctggccgaatggattagcgcgtgttctattgcgattatac
 aggttcgagtcctgtgaggggtcca
 1-14tRNA-Cys(gca)c[69475,69550]
 ggtgtcatggtagaatggtcatacggcggattgcaaatccgcgtcgatac
 tggttcgagtcagttgacacctcca
 1-15tRNA-Gly(tcc)c[69656,69731]
 gcggttgtaactcagatggttagagtgtgtcctccaagtcagatgtcgc
 gatttcgaatctcgtcaaccgtcca
 1-16tRNA-Met(cat)c[69740,69815]
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 aggttcgagtcctgctgggccacca

>GU071096.1 Synechococcus phage S-ShM2, complete genome

1-1tRNA-Arg(tct)[164009,164081]
 gggtcagtagctcagttgtagagcatcgcacttctaagcgttggtcgg
 gggttcaatccctcctgacccg

>GU071097.1 Synechococcus phage S-SSM5, complete genome

1-1tRNA-Val(tac)[15313,15384]
 gggagaatagctcagcggtagagctactcgtttacaccgagtcggtcggg
 ggttcgatcccctcttctcca
 1-2tRNA-Leu(taa)[19381,19468]
 tgggagtggtggcgaatcggtagacgcaccagacttaaaatcgttgaga
 attaatctcgtgggggttcaagtcacccctcctatc
 1-3tRNA-Thr(tgt)[19469,19542]
 gccacttagctcagctggatagagcaacggtttgtaaaccgtaggtcg
 tcggttcaagtcgacatgtggt

1-4tRNA-Arg(tct)[161698,161772]
tgggtcagtagctcagcggatagagcaactgccttctaagcagtcggtcg
taggttcgatccctacctgacccgt
>KC862297.1 Pseudomonas phage PAK_P1, complete genome
1-1tRNA-Gln(ttg)[90515,90588]
tgccgcttcgttcaatggtaggacgccagactttgaatctggagatgatg
gttcgatcccatcagtggtgccca
1-2tRNA-Arg(tct)[90895,90969]
gctcgtatagttaatggatgcacaacggtcttctaagccgtaaggtcta
ggttcgagtcctagtagcagcgcca
1-3tRNA-Lys(ttt)[90979,91054]
tggacggaagctaaagtggatagggcatctggcctttaaccagactatagt
gagttcgagtctcaccggtccaacca
1-4tRNA-Leu(tag)[91329,91413]
ggccctgtggtggaattggtatacacatcagtcctagaactgacgccga
gaggattgaggggtcaagtcctccggggccacca
1-5tRNA-Ile(gat)[91624,91699]
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aggttcaagtccttctctggctacca
1-6tRNA-Asp(gtc)[91709,91787]
ggcccatagctcagtcctggactagagcaagcccctgtctagggcaaggt
cgtcgggtcgaatccgacatgggtcgcca
1-7tRNA-Cys(gca)[92198,92273]
cccgcgttgccgagaggtttaggcggcgattgcaaatccgtctcacat
cggttcaaatccgatacgcggctcca
1-8tRNA-Asn(gtt)[92282,92356]
tgggatgtagctcagtggttagagcagggagctgttaactctcaggtcgca
ggttcgagccctgccgtcccagcca
1-9tRNA-Pro(tgg)[92420,92497]
ctcctcgtagctcagtcctggtagagtgtctgattggaatcagaaggtc
gaaggttcaaatccttcggggtgacca
1-10tRNA-Gly(tcc)[92504,92579]
gcgggtatagctcagttggttagagcgtctgcctccaagcagttcgtcgt
cggttcaagtcctctatccgtcca
1-11tRNA-Phe(gaa)[92586,92661]
gcatttgaagctaactaggtagaagcgtcgggtgaaattccagaggact
tggatcgttaccagcagatgcacca
1-12tRNA-Glu(ttc)[92668,92743]
gcagttatagattaattggttaaatgccagactttcaatctggtgttcc
gggttcgatccccggttaactgctcca
1-13tRNA-His(gtg)[92804,92878]
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ggggttcgagtcctccctcaacc
1-14tRNA-Thr(tgt)[93065,93139]

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>HM242243.1 Brochothrix phage A9, complete genome

1-1tRNA-Arg(tct)c[25601,25676]
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acaggttcgagtcctgttcggggcat
1-2tRNA-Arg(cct)c[25761,25832]
gcctttgtagtttaacggataaaacagaccctcctaagggttagctaga
ggttcgattcctctcaaggga
1-3tRNA-Lys(ttt)c[26744,26818]
agataaggttagctcaattagtagagcaggagcctttaagccccagata
taggtgcaaaccctatcctgtttt
1-4tRNA-Met(cat)c[26848,26920]
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aggttcaagtcctacagggtcca
1-5tRNA-Met(cat)c[27656,27728]
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gggttagagtccttcctcctcaa

>AB472900.2 Pseudomonas phage KPP10 DNA, complete genome

1-1tRNA-Asn(gtt)[83391,83467]
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ctggttcgattccaggagcggagcca
1-2tRNA-Tyr(gta)[83525,83612]
ggaggggtggcagagcggtttaatgcaccggactgtaaatccggcgtccg
accgggcatcgctggttcaaatccagccccctccacca
1-3tRNA-Gln(ttg)[83814,83890]
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tgggttcgaatcccaccacgtctgcca

>HM035025.1 Shigella phage Shf12, complete genome

1-1tRNA-Arg(tct)c[67981,68057]
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aaggttagaatccttctgtctcgacca
1-2tRNA-Asn(gtt)c[68062,68136]
ggatgtgtagctcaatggcagagcgtcgcctgtaagcgattggttata
ggttcgaatcctatcacgtccgcca
1-3tRNA-Tyr(gta)c[68141,68227]
ggggagttatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[68237,68311]
ggccctgtagctggaaggttcaagcaagcactcataatcgccagatggt
ggttcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[68313,68388]
gctgatttagctcagtaggtagacacctcacttgtaatgaggacgtcgg
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1-6tRNA-Ser(tga)c[68390,68478]
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1-7tRNA-Pro(tgg)c[68479,68553]
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1-8tRNA-Gly(tcc)c[68564,68637]
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gttcgattctcattatccgctcca
1-9tRNA-Leu(taa)c[68643,68729]
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1-10tRNA-Gln(ttg)c[68730,68803]
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aggttcgagtcctttattcccagc

>HQ615693.1 Synechococcus phage S-CRM01, complete genome

1-2tRNA-Leu(taa)c[88543,88618]
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gcaagttcgagcttgtcaccggtat
1-3tRNA-Met(cat)c[88642,88716]
tgctcgtttagctatctggtgaaagcagcgaactcataattcgctcagg
tgggttcgatccctcaacgagcat
1-4tRNA-Gly(tcc)[127547,127619]
gcgacgtagttcagcggtagaacgctatcctccaagttagatgtcgct
ggttcaaactccagtcggtcgctc
1-5tRNA-Arg(tct)[127623,127698]
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gtaggttcaaactctaccgaggggtc
1-6tRNA-Lys(ttt)[128952,129026]
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tgggttcgattcccaccggacctat
1-7tRNA-Pro(tgg)[129165,129236]
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1-8tRNA-Tyr(gta)[129535,129620]
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cctgactattggaggttcgattcctcttgcgccac
1-9tRNA-Gly(gcc)[130519,130591]
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ggttcaaactccgatcattcgctc
1-10tRNA-Asp(gtc)[130857,130931]
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1-11tRNA-Trp(cca)[130984,131056]

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ggttcgattcctacactgggtgt
1-12tRNA-Asn(gtt)[131716,131787]
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ggttcgatccctgccgtgccag
1-13tRNA-Glu(ttc)[131866,131942]
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tgcgagttcgaggctcgtctggagttc
1-14tRNA-Glu(ctc)[132042,132116]
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ccagttcaaatctggttggctgtat
1-15tRNA-Pro(tgg)[134674,134748]
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1-16tRNA-Pro(tgg)[134812,134885]
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tggttcaaatccaacatgcaggtc
1-17tRNA-Ile(gat)[134944,135015]
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gttcgactcttctatctctac
1-18tRNA-Ile(gat)[135054,135129]
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gtcagttcaaatctgactgttcctat
1-19tRNA-Phe(gaa)[135201,135274]
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tcggttcgattccgtcagttcca
1-20tRNA-Ala(tgc)[135312,135386]
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ggggttcgagtccttagattccat
1-21tRNA-Val(gac)[135761,135834]
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cagttcaatcctgactggacctat
1-22tRNA-Ser(gct)[136579,136664]
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aataaccacacaggttcaaatcctgtcacttccgc
1-23tRNA-Ser(gga)[136667,136760]
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1-24tRNA-Met(cat)[139590,139660]
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gttcaattctcctagagtca
1-25tRNA-His(gtg)[139662,139738]
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1-26tRNA-Thr(ggt)[139738,139811]
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 1-27tRNA-Thr(tgt)[141268,141341]
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 1-28tRNA-Ser(tga)[141517,141587]
 tctggagtcgtctaattggcaggacacggcgcttgaacgcttcaatgtgg
 gttcgatccctacctccagaa
 1-29tRNA-Lys(ctt)[141838,141913]
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 gcaggttcgattcctgtcacacccat
 1-30tRNA-Cys(gca)[142050,142123]
 gtctcagtcgccaagtgccctaaggctctggattgcaaaccagttattcg
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 1-31tRNA-Leu(caa)[145010,145084]
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 1-32tRNA-Ile(tat)[145590,145679]
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 1-33tRNA-Arg(acg)[149226,149301]
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 gtaggttcgactcctacatcgggtgc
 1-34tRNA-Ser(tga)[149328,149413]
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 1-35tRNA-Met(cat)[149448,149521]
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 gtggttcaaatccacctccgcct
 1-36tRNA-Leu(gag)[149554,149627]
 gccgatgtaacccaactggcagaggtagatgtatgagatgcattcagtg
 cagggtcaaatcctgtcatcggta
 1-37tRNA-Val(tac)[149711,149784]
 tgggagcataactcagtggttagagtcctgttttacacgcaggcagtcgg
 ggggttcaaatccctctgtctctat
 >HQ259103.1 Salmonella phage SFP10, complete genome
 1-1tRNA-Met(cat)[137450,137525]
 ggccccgtagctcagtggttagagcagtcgactcataatcgattggtcgc
 tgggtcaagtccagccagggtcacca
 1-2tRNA-Asn(gtt)[137939,138014]
 gacgatgtagttcagtcggtagaacggcggtctgttaaacgtatgtcgc
 aggttcaagtcctgccatcgtcgcca
 1-3tRNA-Ser(gct)[138683,138771]

ggaagggtgcccgagaggtttaagggactcgactgctaatacgagtggggc
 ttttagccccgaagggtcgaatccttcacctccgcca
 >GU459069.1 Aeromonas phage 65, complete genome
 1-1tRNA-Leu(taa)[107957,108041]
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 cgggattgggggtcgaatccccccacaagcacca
 1-2tRNA-Arg(tct)[112203,112279]
 gcgctgttagctcagttggatagagcaacgttcttctaagcgtgggtcg
 ctggttcgaatccagcacggcgacca
 1-3tRNA-Leu(tag)[112286,112369]
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 tagcgtgacggttcgagtcgcatccccacca
 1-4tRNA-Gly(tcc)[112478,112553]
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 gtgttcgagtcacgttaccgcacca
 1-6tRNA-Met(cat)[112642,112719]
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 actggttcgagtcagttggggccacca
 1-7tRNA-Met(cat)[113178,113253]
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 1-8tRNA-Asn(gtt)[113260,113335]
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 1-9tRNA-Ser(tga)[113465,113558]
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 ggcgtaacagcgcttgtgagttcgatcctcacatctccgcca
 1-10tRNA-Lys(ttt)[113568,113643]
 gcatcgtagctcagcaggtagagcatgggacttttaatctcagggtcgc
 tgggtcgaatccagcacgatgtacca
 1-11tRNA-Tyr(gta)[113650,113733]
 ggatgcataggcaaatggttaagccagcggctgtaaaaccgtagccttc
 gggcttcttgggtcgaatccaagtgtatccacca
 1-12tRNA-Trp(cca)[113740,113814]
 aggtctatggtgtagtggtaacatgccgattccaaatccgtgcgtctgg
 ggttcaagtcctcatggcctgcca
 1-13tRNA-Ala(tgc)[113820,113896]
 gggggattagctcagttggaatgagcagctggttgaaccagtaggtca
 tcggttcgacccgatatcctccacca
 1-14tRNA-Pro(tgg)[114340,114417]
 ccgtgttaggctaggcaggtcaagtcgtctgtttgggaccagaagatc
 gaaggttcgaatccttcacacggacca
 1-15tRNA-Thr(tgt)[114991,115066]
 gccgaattagctcatctggtagacacagccttgaacgctggggtggt

ccgttcgagtcggacattcggcacca
1-16tRNA-Ile(gat)[115079,115154]
agtggattagctcagtaggtagagcactcgaccgataatcgagagcgcat
tggttcaacccaatatccactacca
1-17tRNA-Ser(gct)[115161,115248]
ggagaagtggatgagcggcttaaatcgctcccctgctaaggagtaaacc
ggaaggtttcgagagttcgaatctctccttctccgcca
1-18tRNA-Asp(gtc)[115256,115331]
gaggatgtagtatagtggtcaatatccctgcctgtcacgtaggagatcgc
gggttcgagtcgccgtcatcctcgcca

>GU071094.1 Synechococcus phage S-SM1, complete genome

1-1tRNA-Val(tac)[15012,15085]
tgggagattagctcagcggtagagctattcgtttacaccgaatcggtcac
tggttcgattccagtatctcccat
1-2tRNA-Leu(taa)[18953,19039]
tgggagcgtggcgggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggttcaagtcctccctcctat
1-3tRNA-Thr(tgt)[19409,19485]
gccacttagctcagctggatagagcaacggtttgtaaaccgtaggtca
acggttcaagtcggttgagtggctcca
1-4tRNA-Ala(tgc)[19486,19558]
ggggaattagctcaattggtagagcacctgcttgcacgcagggggttag
cggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[19607,19680]
ttcctcttagctcagcggtagagcgggtgactgttaatcaattgtccc
tggttcgatcccaggaaggggagt
1-6tRNA-Gly(acc)c[74450,74541]
ggggtagttaaactaatggagaggttcgtgccgttaccaatggcaccata
aatctcattaaagtgtcattgatcttatcgccgccagcacg
1-7tRNA-Arg(tct)[160615,160689]
tgggtcagtagctcagcggatagagcaactgccttctaagcagttggtcg
caggttcaaatcctgcctgactcgt

>GU071106.1 Synechococcus phage Syn19, complete genome

1-1tRNA-Val(tac)[17789,17861]
gggcgaatagctcagcggtagagctactcgtttacaccgagtcggtcggg
ggttcgatcccctcttcgcccac
1-2tRNA-Leu(taa)[22314,22400]
tgggagtggtggcgggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggttcaagtcctccctcctat
1-3tRNA-Thr(tgt)[22402,22473]
gcccttatagctcagtggtagagcaacgctttgtaaagcgtaggtcgtt
ggttcaaatccgactgggggct
1-4tRNA-Ala(tgc)[22476,22549]
ggggaattagctcagttggtagagcgctgcttgcgaagcaggatgtcag

gagttcagagtctcctattctccac
1-5tRNA-Asn(gtt)[22554,22625]
tcctctttagctcagcggtagagcggttgactgttaatcaattggccct
ggttcgatcccaggaaggggag
1-6tRNA-Pyl(cta)[163912,163986]
tgggtcagtagttcagcggatagaacaacgctcttctaagcgtgtgtcg
ggggttcgattccctcctgacccgt

>GU071103.1 Prochlorococcus phage P-SSM7, complete genome

1-1tRNA-Ile(tat)[117038,117109]
gggactatcgcatattggtaatgccactgcttataacggtgtgaaacg
ggttcaattcccgttagtccta
1-2tRNA-Arg(tct)[117112,117186]
tgactcagtagctcaaaggatagagcaattgccttctaagcaattggttg
taggttcgagtcctacctgagtcgt
1-3tRNA-Leu(taa)[117189,117261]
gggagtgtagtccaacggcagagacaggagactaaaatctctacagtgt
gggttcgaatcccaccactccta
1-4tRNA-Asn(gtt)[118123,118209]
ttgtgaggtggcgaacggtaaagcgtctagtctgttaactagtgtctc
tggcgggactttaggttcgactcctaccctcacagt

>FQ482085.1 Erwinia tasmaniensis phage phiEt88 complete genome

1-1tRNA-Phe(gaa)[44731,44806]
ggaactctggcgtaggtggttcgcgcggatgtctgaaaaacctcaggaac
tggttcgattccagcgggtccacca

>GU296433.1 Campylobacter phage NCTC12673, complete genome

1-1tRNA-Tyr(gta)c[85876,85960]
gtagaagtaggataattggaatccaccagactgtaaactggcgtcttt
tggcattgatggttcaagtcacatccttctacacca
1-2tRNA-Asn(gtt)c[85979,86053]
tcgagattagcacagcggtagtgcaatcgactgttaatcgatgagtcaga
ggttcgaatcctctatctcgagcca
1-3tRNA-Met(cat)c[86147,86221]
gggcgagtagctcaatggtagagcaaccggctcataaccggttggttata
ggttcgattcctgtttcgcccacca

>GU070616.1 Salmonella phage PVP-SE1, complete genome

1-1tRNA-Ala(ggc)c[62894,62975]
tgcgtggtagtgaacggatataagatcatgttgccctcataagccgaa
gattgcgggttcgactcccgtcacgcatcca
1-2tRNA-Phe(gaa)c[62982,63057]
gggggttgaactcagttggtagagtcctgcctgaagagcagatggtcgg
tggttcgagtcacccggccccacca
1-3tRNA-Val(tac)c[63065,63139]
gcttccttagttcaatggtagaacgtgtctttacacggcaagcgtcgg
ggttcgattccatcaggaagtacca

1-4tRNA-Leu(tag)c[63147,63223]
gggcgattgatggaattggtatacgtgccgtccttagaagtcggattttg
ggggttcgagtcctcgtcgccacca
1-5tRNA-Ala(tgc)c[63330,63408]
ggggaatgggtctgcttgagtgacacctcgttgcaccgaggatatca
gaagagttcgaatctcttattctccacca
1-6tRNA-Arg(acg)c[63412,63487]
gcaggtatagttcaactggacagagcatcagcctacgaagctgagaatcg
gggttcgaatccctgtactgcacca
1-7tRNA-Pro(tgg)c[63675,63750]
cagtcgtagcgcagttggtagcgtgggagccttgatgcttcgggtcgc
aggttcgagtcctgccgggctgacca
1-8tRNA-Asp(gtc)c[63848,63924]
ggggccgtggctgacaagtaattggtccgcactgtctatgcggaaaatg
agggttcgatccccttcggcctcgcca
1-9tRNA-Asn(gtt)c[63932,64016]
gacgagttggcctagtgttgggcgacggcctgtaagccgtgagtga
actcaaggaaggttcaaatcctcactcgtcgcca
1-10tRNA-Lys(ttt)c[64081,64163]
gggtctgtagccaagtgtgacgcaagtgaaggcatccgactttaatc
ggaggatcgggggttcgaatccctccagaccacca
1-11tRNA-Ser(tga)c[64170,64255]
ggagagtgccgtccaacgggtggacaagcaggttgaaccctgtggtgctg
gaaacgtaggggttcgattcctccactctcctcca
1-12tRNA-Ser(gct)c[64257,64350]
ggaagattaaccctaatacagtaaggatctcttgcctaaagagacagta
gccccgaaaggggtgtcagttcaagtctgacatctcctcca
1-13tRNA-Ser(gga)c[64356,64445]
ggagaagcaaatcgacagtgacgaaaacaccttggaaggtgctgactg
gtaaaacggcttgagagttcgattctctccttccgcca
1-14tRNA-Gln(ttg)c[64559,64635]
agggggttagcatagctggcctaatacgcagggcttgaactcgacatcg
gaggttcgaatcctccacccctgcca
1-15tRNA-Glu(ttc)c[64725,64801]
gtcctgttagacaaactggtaaagtcaccacccttcaagtggggtttg
cgggttcgatccccgcacaggacgcca
1-16tRNA-Gly(tcc)c[64809,64882]
gcgctattagtgtagcgtccagcatccgccttccaagtcggtggca
tcggttcgaatccgatatgacgt
1-17tRNA-Ile(gat)c[64890,64965]
gggagtatagctcagttagtagagcgtcgaccgataatcgagaggtcgc
aggagcaaagcctgctactccacca
1-18tRNA-Tyr(gta)c[64973,65056]
ggctcattggcagaacggtgattgcagcggattgtaaatccgtgcccttc

ggggttcctggttcgaatccagggtgggccacca
1-19tRNA-Cys(gca)c[65709,65782]
gcactgttgctggagtggaacagcttcgtctgcaaacgaatgctggtg
gttcgattccctcacagtgtctca
1-20tRNA-Arg(tct)c[65784,65858]
cggggcatagctagcggataggcaggagcttctaaactcctttacgcg
ggttcgaatcctgctgcctcgacca
1-21tRNA-Leu(taa)c[65866,65951]
gcaggtgtggtggaatggagatacacaggagactaaaatctcccgtt
aatgattacgagttcgagtctgtcacctgcacca
1-22tRNA-Ile(gat)c[66926,67001]
tcctcgtagctcaagttggtagagcagtcaccaagattcgggataagcac
aggttcgattcctgtacgaggagcca
1-23tRNA-Thr(tgt)c[67008,67082]
gctcctaaagcataagtggtgatgcagcggccttgaagccgaagaagtg
ggttcgattcctactgggagcacca
1-24tRNA-Lys(ctt)c[69196,69271]
ggggattaacacagcggtagttagcggcctctaagccgaaggtcga
aggttcgaatcctcatgccccacca
1-25tRNA-Met(cat)c[69964,70040]
ggttctgtagcttagttggttagagcgtccctcataaggaagaggtcg
caggttcaattcctgccagaactacca

>JQ691612.1 Cronobacter phage CR3, complete genome

1-1tRNA-Thr(tgt)[144372,144447]
gctggattagctcagtaggtagagcgctcacttgaataggatgtcgc
gggttcgattcctgcatccagcacca
1-2tRNA-Cys(gca)[144454,144530]
gcaacgttgccggagcttggaacggctctcgctgcaaacgagatgagca
ctggttcgaatccagtacgttgtctca
1-3tRNA-Leu(caa)[144532,144608]
gcgtctttggtccaattggttagaggcactacattcaaatgtaggggttc
ccagttcgaatctgggaaggcgcacca
1-4tRNA-Ser(gga)[145443,145537]
agtaggatggctgagtggttaaagcagcatcttgaaaggtgtcggatc
aggtaacccttggtcccggagttcaaatctccctcctactgcca
1-5tRNA-Lys(ttt)[145604,145680]
ggatcgtagctcaattggttagagcaagggacttttaatcccagggttc
ggggttcgagtcctgacgggtccacca
1-6tRNA-Asn(gtt)[145846,145921]
tgacggtgagcatatatggacatcggggacctgttaagtccaggataac
tggttcgaatccagtaccgtcagcca
1-7tRNA-Glu(ttc)[146316,146393]
gtcctggtagacaaactggataaagtcaccaccctttcaaggtggagttt
gagggttcgatcccctctcaggacgcca

1-8tRNA-Glu(ctc)[146400,146479]
taccgggtgcgacaagcggtaagtcgtccaccgctcgaatgaacgtggag
acacaggttcgatccctgtccggtaacca
1-9tRNA-Asp(gtc)[146575,146650]
ggtcctatggtattagcggtaacatactgcctgtcacgcgagagtcac
gggttcgaatcccgttaggaccgcca
1-10tRNA-Ile(gat)[146658,146732]
tggggattagctcagggtagagcgcacaactgataattgtgaggtcgg
ggttcgaaaccaccatccccaacca
1-11tRNA-Pro(tgg)[146803,146879]
cggtgtatagcgcagcctggtagcgcactgtggttgggaccagagggtcg
ctggttcgagtcagctacaccgacca
1-12tRNA-Met(cat)[146886,146960]
tcgaggtagttcagcggtagaacaggggttcatacgcctcatgtcggc
agttcgattctgcccttcgaacca
1-13tRNA-Leu(tag)[146967,147044]
gctccagtagcccaattggtagaggcacttgattaggatcatgtcaatg
atgagttcgaatctctcctggagtacca
1-14tRNA-Gly(tcc)[147051,147124]
gcgggcatggtatagtggtgtgccttagcctccaagctaattgagtcg
gttcgatcccggatgtccgctcca
1-15tRNA-Gln(ttg)[147198,147273]
aggggattagtttaattggtaaaacatcgggtttgatcccgcacatcgtg
aggttcgaatcctccatccccgcca
1-16tRNA-His(gtg)[147356,147431]
gtggcctaattcagcaggtagaatccccggtgtgaaccgggcagtcgt
gggttcaagtcccacaggtcacccca
1-17tRNA-Ser(tga)[148112,148204]
ggaagatagggcgtagtggtacgcacccggattgaaccccgcccgtg
tggcgacccacggatagttcgactctattatcttcgcca
1-18tRNA-Ser(gct)[148209,148295]
agaagagtggcgaaatcggtagccgcaccggactgctaataccgggtccc
tcggggcctgagagttcaagtctctctcttctgcca
1-19tRNA-Phe(gaa)[148301,148376]
ggaactgtagctcagttggtagagcgggtgcctgaagagcagcgcgtcag
cggttcaaatccgttcagttccacca

>JN132397.1 Campylobacter phage CPX, complete genome

1-1tRNA-Tyr(gta)c[38265,38350]
gtaagcatatgggtaattggttaaccaccagactgtaaatctggcgtctc
ttggcactgcaggttcgagtcctgctgcttacacca
1-2tRNA-Arg(tct)c[38361,38437]
ctccatgtagctcagctggatagagaagaatcttctaagttctaggtcg
ggtgttcaaatcactccatggaggcca
1-3tRNA-Asn(gtt)c[38447,38522]

tcgggattagcacagtggtagtgcaatcgactgtaaatcgatggggtcat
agggtcgaatcctatatccgtagcca
1-4tRNA-Met(cat)c[38793,38867]
agcagagtgacgcagtagtagcgtgctgggctcataaccagatgctgta
gggtcaaatacctacctctgtaacca
1-5tRNA-Leu(taa)c[38873,38950]
tggacatgtagcgtcaagtggtagagcagccgacttaaaatctgcagat
tgatgggtcgatcccatccatgtccaac
1-6tRNA-Met(cat)c[38955,39029]
gggcgagtagctcaatggtagagcaaccggctcataaccggttggttata
ggttcgattcctatttcgcccacca

>JN593240.1 Escherichia virus CBA120, complete genome

1-1tRNA-Met(cat)[136807,136881]
ggtcctgtagctcagtggtagagcagccccctcataagggattggtcgct
ggttcaagtcagccagggtcacca
1-2tRNA-Asn(gtt)[137294,137369]
gacgatgtagttcagtcggtagaacgcgggtctgttaaatcgatgtcgc
agggtcaagtcctgccgtcgtcgcca
1-3tRNA-Ile(gat)[137986,138069]
gccggagccataggggtggccagtagccgactgatcatcggcgacgac
actggacagggtcgaatcctgttctcccgtcca
1-4tRNA-Ser(gct)[138074,138162]
ggaaggttgcccagaggtttaagggactcgactgctaatacgatggggc
tttagccccgaaggttcgaatccttcaccttcgcca

>AJ972879.2 Yersinia phage phiR1-37 complete genome

1-1tRNA-Arg(tct)[67659,67735]
cggggtgtagcataataggataatgcaccgaccttctaagtcggcttacg
tgggttcgactccctccgtcccacca
1-2tRNA-Leu(tag)[67746,67829]
tgcaaatgtggcgaaattggtagacgccccagatttaggttctggatcgc
aaaggtgtgtgggttcgactccctccattcgcaa
1-3tRNA-Leu(taa)[67838,67925]
gtctgctgtccaaattggtaaaggaaggagactaaaatctccggctg
taacagccttatgggttcgactcccttagcagatacca
1-4tRNA-Asn(gtt)[71536,71613]
gactcgctagctcagttggttagtagcgatgactgttaatcatcaggtc
gcaggttcaagccctgcgcgagtcgcca

>JN022534.1 Xanthomonas phage vB_XveM_DIBBI, complete genome

1-1tRNA-Asn(gtt)[1645,1720]
ggccgattagcaagtgggacacgcggcgactgtaatccgtgaattacc
tggttcgactccaggattggccgcca
1-2tRNA-Ser(gct)[1911,1999]
ggcgggtgtcagagcggcttattgaagttgactgctaataacccggggc
gcaagtcccgcagaggttcgaatcctctacccgcccga

1-3tRNA-Asp(gtc)[2162,2238]
aggccccgtagtgtaggcggttaacatactcccctgtcacgggagagatcg
cgggttcaaaccctgcgggcctcca

1-4tRNA-Ala(ggc)c[16132,16220]
gattgtatcggctggcgtgtcgctgttgctggcgtcgatgttccgatgt
gtactgtcacattgttcacggttcacccgctacagttg

>HM144387.1 Bacillus phage W.Ph., complete genome

1-1tRNA-Asn(gtt)[8115,8190]
gtgcttagctcagtagtagagcgtcagattgttaatctgggggtcgc
aggttcaatccctgcttagcacgcca

1-2tRNA-Glu(ttc)[8195,8271]
gtcgcatgggtgaaattggctaacacactcggcttctaccgaggattta
ggggttcgagcccctatgcgattcca

1-3tRNA-Asp(gtc)[8275,8348]
tggggatatagttagtggtgaacacgcacggctgtctaccgtgaagcac
gagttcgagtctcgttatcctcgt

>JN627160.1 Pseudomonas phage OBP, complete genome

1-1tRNA-Met(cat)c[16040,16116]
ggccccgtagctcagacggtagagcaggtgactcataatcgcttggtcg
cgtgttcaagtcacgccggggccacca

1-2tRNA-Arg(tct)c[16121,16196]
gcgctcttagctcagtgtagtagcagtagccttctaagctattggtcac
aggttcgaatcctgtagggcgcgcca

1-3tRNA-Ser(gct)c[16733,16821]
agagagttggatgagttggtttaagtcacctccctgctaaggaggcagtc
cttcggggctcatgggtcgaatcccatactctctgccca

1-4tRNA-Asn(gtt)c[16826,16901]
gctcgtgtagttcagtcggttagaacggcgactgttaatccgtatgtcac
aggttcgagccctgtcacgagcgcca

>JN882285.1 Cronobacter phage vB_CsaM_GAP32, complete genome

1-1tRNA-Ser(gct)[271095,271185]
ggtgagttgggggagtcggttaaccagcaccctgctaaggtgtcggcc
tcgcaagaggccctgggttcaaataccacactcaccgcca

1-2tRNA-Trp(cca)[275545,275617]
aggagtatagtataacggctattatgtgtggctccaaccacaagatcag
ggttcgattccttgtgtcctgc

1-3tRNA-Thr(tgt)[278688,278770]
gctgccttcccataattggtattggaccgcactgtaatcgggcgggaa
accattctcggttcgagtcgaggggtagcac

1-4tRNA-Leu(tag)[284186,284268]
ggggatgtggtgaaattggcagacacgccagattaggttctgttcttc
ggagtgcgagttcgagtctgccatccccacca

1-5tRNA-Arg(tct)[292115,292188]
ctcctgttagttcaaacggaagaacatcgaccttctaagtcgaggttac

tggttcgagtcagtcacgggagac
1-6tRNA-Pyl(cta)[293273,293345]
gcccttgtagttcagcggtagaacgggagtcctctaaaactcctgtcga
ggttcgaatcctgtcaagggcac
1-7tRNA-Leu(taa)[293351,293433]
gcgggtatgggtgaaattggtaaacacaggggatttaagttccccgctga
ggcttgacggttcagtcctctacccgacca
1-8tRNA-Met(cat)[293844,293918]
gggactgtagcttaaagttaaagcagtgccctcataagccaacgagtgga
agttagagtcctcccggtccacca
1-9tRNA-Leu(taa)[296175,296262]
gcgggtgtggcggtattggcagtcgcacaagacttaaaatctttaggg
gtttccccttgtgagttcgaatctcatcaccgtagca
1-10tRNA-Leu(caa)[301093,301180]
ggggatatggcgaaattggtagcacgcaggagactcaaaatctcccgcca
gagatggcgtgtcgggtcagtcgactatcccccacca
1-11tRNA-Glu(ttc)[306268,306340]
gttcccatcgtctagcggctaggacgcttccctttcaaggaggaaaccgg
agttcgattctcgtgggaacgc
1-12tRNA-Tyr(gta)[306352,306433]
ggggagttggcagagcggtcgaatgcacctgactgtaaatcaggcacacc
acacctggttcgaatccaggacgccccacca
1-13tRNA-Ser(tga)[306770,306864]
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ctagtaaccctagttcctacggtcaaatacgttaattcttctcca
1-14tRNA-Ile(gat)[308436,308510]
gggaatatagcacaattggtcagtcgactcgcccgataagcgagatgta
cgtgttcgagtcacgttattccac
1-15tRNA-Asn(gtt)[310988,311061]
ggttacgtagctcagcggtagagcgttcgcctgttaagcgaagggtcgc
tggttcaatccagccgtgatcgc
1-16tRNA-Gln(ttg)[311137,311210]
aggggattagccaagttggaaggcacatggtttgatccatgtatgcgg
aggttcgagtcctccatcccctgc
1-17tRNA-Gly(tcc)[311346,311418]
gcatccatcgtatatcggtattataattggcttccaccaatagaacgg
agttcgaccctccgtggatgctc
1-18tRNA-Asp(gtc)[312880,312952]
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gttcgattaccctggttccgc
1-19tRNA-Arg(acg)[313536,313612]
gttcgtgtagctcaactggaattagagcgttcgtctacgaagcgaaaggt
tataggttcgatccctatcatgaacac
1-20tRNA-Pro(tgg)[315418,315493]

cggagtgtgggctaattggtagccgcctagtttgggactaggagtttat
 gcaggttcgagtcctgtctctccgac
 1-21tRNA-Phe(gaa)[317155,317229]
 gggtcggtaactcagttggtcagagtatacactgaaaatgtattggtcg
 cgagttcgaatctcgcccgccac
 1-22tRNA-Lys(ttt)[318210,318283]
 acctcgtaactcagttggtagagtaacggctctttaaaccgtgagtcgc
 tggttcgaaccagcacgaggtac
 1-23tRNA-Cys(gca)[322498,322575]
 gcagggatgcctgagatggcttaaaggagcggattgcaaaccgatgttc
 gggggttcgaatccccctccctgtcca
 1-24tRNA-Met(cat)[323476,323551]
 ggtcagttagttcagttggtagaacgtttcactcataatggagaggcttc
 actggttcaagtccagtactgaccac
 1-25tRNA-Met(cat)[324419,324498]
 tcgggagtagagcagtcctggtagctgcaaggctcataacctgaggtcg
 tgttgggtcgaatcccacctccgcatcca
 1-26tRNA-Ala(tgc)[324515,324588]
 ggggctatagctcagttgggagagcgtctgccttcacgtagaagggtcaa
 cggttcgaaccggttagctccac
 >HQ698922.4 Acinetobacter phage ZZ1, complete genome
 1-1tRNA-Trp(cca)c[73037,73108]
 gggtcgtagttagttggaaacacggtggattccaaatccgcaatccag
 ggttcgagtccttggcgacgcc
 1-2tRNA-Pro(tgg)c[73349,73425]
 ctccgtatagctcagtcctggtagagcactgcgttgggacgcaggtgtcg
 aatgttcaaatactctacggagacca
 1-3tRNA-Ser(tga)c[73639,73733]
 ggaaggtcaagccgaaagctggcgacggcagctgactgaaatcagtcga
 gcgtggtgacacgccttgagggttcgacccctcacctccgcca
 1-4tRNA-Thr(tgt)c[73887,73962]
 gccgtcatagctcagttggtagagcgtctgtttgtaatcagagggtccg
 gggttcaaatactctgtcggcacca
 1-5tRNA-Cys(gca)c[75677,75753]
 gacgtcgtggcagaattggttatgcggcgattgcaaaccgcgtcgaatg
 agggttcgaatccatccggcgtctcca
 1-6tRNA-Met(cat)c[75945,76021]
 gggccttagctcaattggtagagcagcggactcataatccgttggttc
 ccagttcaagtctgggaggccaccca
 1-7tRNA-Arg(tct)c[76027,76102]
 ccgtctgtggccgaatggattaggcatcgtagtctattgcgactcacac
 aggttcgaatcctgtcaggcggacca
 1-8tRNA-Pyl(cta)c[76196,76269]
 cgttcagtaggttaacggtagaccaggagtcctaaaactctgtgtgacg

gttcgaatccgtcctgaacgacca
>JN797797.1 Bacillus phage BCP78, complete genome
1-1tRNA-Met(cat)c[37,109]
agggtttagctcagtggttagtcggtctcataagccaaggctcgt
aggttcgactcctactagcccta
1-2tRNA-Leu(tag)c[253,327]
tgccgaagtaatccaatggcagagatagcggtttagaaaccgtacagt
tgggttcgagtcacaccttcggtat
1-3tRNA-Leu(taa)c[332,419]
ggcggagtgtggaattggtagacatatggcacttaaaatgctatgtccg
tatgggcgtgggttcgagtcacccctccgctacca
1-4tRNA-Ile(gat)c[435,511]
gctagggtagctcagtcaggtagagcagtgcttgataaggcattggctc
taggttcaaactcctaccctagtagcca
1-5tRNA-Tyr(gta)c[513,599]
gggcgagtagtcaaattggtgaagcaagcggctgtaaaaccgtgacgta
agatacattgcaggttcgagtcctgccttccacca
1-6tRNA-Phe(gaa)c[739,814]
ggacggatagctcagttggtagagcagaggctgaaaatcctcgtgtcgt
aggttcgatccctactccgtccacca
1-7tRNA-Pro(tgg)c[929,1005]
tgtagggttagctcagattggctagagcgttgcttgggagcaagaagt
cgcaggttcaagtctgcaccccgcat
1-8tRNA-His(gtg)c[1047,1118]
cggggtgtggcgtaacggtaacgcaagtgactgtggatcactgaatagg
ggttcgattcccctcatcctga
1-9tRNA-Gln(ttg)c[1201,1273]
tttcggagtagccaagtggtaaggcaatagactttgactctatgatcggt
ggttcgagaccatcctccgaagt
1-10tRNA-Ser(tga)c[1351,1442]
ggaagggtagtcaagtggataaaagagtcggtcttgaaaaccgctaggc
gtgtaaaagcgtgcgtgggttcgaatcccactcctccgcca
1-11tRNA-Arg(tct)c[1447,1523]
tatcccattagccaagttggatcaaggcaacgggcttctatcccgttaat
cgtgggttcgagtcctacatgggatgt
1-12tRNA-Ile(tat)c[1603,1677]
gcccctttagccaagcgggtcaaggcagtgaggattatgtcctgcgaatcg
gaagttcgaatctccaaggggagc
1-13tRNA-Glu(ttc)c[1681,1754]
ggggatttggtgaagtgggtcaaacacatccgactttctatcgagatacg
agggttcgaatcccttataccctt
1-14tRNA-Asp(gtc)c[1883,1955]
tggggtattagtttagtggtaaaatactgcactgtctatgcagagtcagg
ggttcaactcccctatacctcgt

1-15tRNA-Gly(tcc)c[1960,2035]
ggggcattagtatatcggttcattattcctggctccaaccaggggaggt
cggttcgattccgacatgtccctcca
1-16tRNA-Ser(gct)c[2042,2132]
ggagagttgtcagagtggttatcgtgcctgtttgctaaataggtgtacg
tccttaacgtaccacaggttcaaatcctgtactctccgcca
1-17tRNA-Asn(gtt)c[2619,2693]
gctcctgtacgtagcggttagcgcagcagcctgttaagctgttggtcggg
ggttcgaatccaccagagcgcca
1-18tRNA-Cys(gca)c[2707,2780]
gaagggtgtaccgaagtggcttaacgggctagattgcaaccctagttttcg
tgggttcgaatcccaccactttct

>JX569801.1 Campylobacter phage CP30A, complete genome

1-1tRNA-Tyr(gta)c[88608,88693]
gtaagcatatgggtaattggtaaccaccagactgtaaatctggcgtctt
ttggcattgatgggttcaaatccatcctcctacacca
1-2tRNA-Arg(tct)c[88704,88780]
ctccatgtagctcagctggatagagcaagaatcttctaagttctaggtcg
ggtgttcaaatcactccatggaggcca
1-3tRNA-Asn(gtt)c[88790,88864]
tgcggattagcacagtggttagtgcaatcgactgttaatcgatgggtcata
ggttcgaatcctatatccgcagcca
1-4tRNA-Met(cat)c[88958,89032]
gggcgagtagctcaatggtagagcaaccggctcataaccggttggttata
ggttcgattcctatttcgccacca

>JF966203.1 Bacillus phage Bastille, complete genome

1-1tRNA-Asn(gtt)[5856,5930]
tgtgctttagctcagtcggtagagcgccagattgttaatctgatggtcg
cagggttcgattcctgcttggcacgt
1-2tRNA-Trp(cca)[6692,6765]
gggagtttagtttagtggtaaacctcggctcctcaaaaccgaagtcatat
gttcgattcgtagctcctgccca
1-3tRNA-Ser(tga)[6767,6854]
ggagggttggcagagtggtattatgcagcggcttgaaaaccgccgaggg
taaaacctccgtgagttcaaatctcacacctcctcca
1-4tRNA-Asp(gtc)[6856,6929]
tggggataatgtagaggtaaacacgtacggctgtctaccgtgaagcac
gagttcgaatctcgttaccctcgt
1-5tRNA-Leu(tag)[7151,7228]
tgccgaagtaatccaatcaggtagatagcggttttagaaaaccgtccag
tgtgggttcgacccctccttcggtatc
1-6tRNA-Tyr(gta)[7235,7318]
tggcagaatagtcgaagcggaacgacaggtgactgtaaatcaccctcat
tcgagttcgtaggttcgagtcctcgtctctctat

1-7tRNA-Ser(gct)[8231,8318]
ggaggggtactcaagcgggaagaggttagtttgctaaactaataggtcg
agtaatcggcgcgaggggttcgaatccctccccctccac

>JN986846.1 Enterobacteria phage vB_EcoM_ACG-C40, complete genome

1-2tRNA-Arg(tct)c[68043,68118]
ggggcatagctcagaaggaagagcaaggaccttctaagtcctgggtcgt
aggttcgatccctactgcctcgacca

1-3tRNA-His(gtg)c[68123,68198]
gtggccgtagttcagttggtagaactcgagattgtgattctcgtagtc
gggttcgactcccatcggtcacccca

1-4tRNA-Asn(gtt)c[68313,68387]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattggttata
ggttcgaatcctatcacgtccgcca

1-5tRNA-Tyr(gta)c[68392,68478]
ggggagtatcccgtagaggtagcgggtggactgtaaattcattgtcat
tgcgactcgggtggttcgactccatcactccccacca

1-6tRNA-Met(cat)c[68491,68565]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggttcaattccaccaggccacca

1-7tRNA-Thr(tgt)c[68567,68642]
gctgatttagctcagtaggtagagcaactcacttgaatgagaaggtcgg
cggttcgattccgtcaatcagcacca

1-8tRNA-Ser(tga)c[68648,68737]
ggaggtgtggcagagtgtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcaaactctatcgctccgcca

1-9tRNA-Pro(tgg)c[68739,68813]
ctccgtgtagctcagtttggtagagcgctgattgggatcaggaggtcc
aaggttcaaatccttgtatggagac

1-10tRNA-Gly(tcc)c[68824,68897]
gcggatattgtataatggcattacctcagacttccaatctgatgtga
gttcgatttcattatccgtcca

1-11tRNA-Leu(taa)c[68903,68989]
gcgagaatgggtcaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgggttcgagtccttctcgacca

>JN882284.1 Cronobacter phage vB_CsaM_GAP31, complete genome

1-1tRNA-Met(cat)[84261,84337]
ggttctgtagcttagttggttagagcgcttccctcataaggaagaggtcg
caggttcaatccctgccagaactacca

1-2tRNA-Lys(ctt)[85032,85107]
ggggattaaactcagcggtagagtagcgccctctaagccgaaggtcga
aggttcgaatccttcattgccccacca

1-3tRNA-Thr(tgt)[87106,87180]
gctcctaaagcataagtggcgatgcagcggccttgaagccgaggaagtg
ggttcgattcctactgggagcacca

1-4tRNA-Arg(gcg)[87187,87260]
tcgtttagatagccttagcggttaaagccccctctgcgcaaggggttcagtg
gttcgaatccacttcagcgagcca
1-5tRNA-Leu(taa)[87563,87640]
gcgctcttggccaatctggtagagcatgggtgttaagctcccagggtt
cccgggttcgagtcgggagggcgcacca
1-6tRNA-Arg(tct)[87645,87719]
cgggtatagctctagaggataggcaggagtcttctaaactccttacgtg
ggttcgaatcctactacctcgacca
1-7tRNA-Cys(gca)[87725,87798]
gcgcggttgctggagtggaacagcttcggctgcaaaccgaatgtcaggt
gttcgattcacctaccgtgctcca
1-8tRNA-Tyr(gta)[88253,88340]
ggggcggttcccggagcggcaaacgggcgggattgtaaatcccttggcat
cgcgtccttcgtaggttcgagtcctactcggccacca
1-9tRNA-Ile(gat)[88347,88421]
gggagtatagctcagtggttagagcaaacggtcgataaccgttaggtcgct
ggttcaagcccagctactcccacca
1-10tRNA-Gly(tcc)[88428,88503]
gcgttattagtgagtggtccagcatcccgctcctccaagtcggtgacat
cgggttcgaatccgataaacgtcca
1-11tRNA-Glu(ttc)[88511,88586]
gtcctatcggctaaacggtcaggccgccagactttcaatctggaatcc
gagttcgattctcgggtgggagtgcca
1-13tRNA-Trp(cca)[88672,88748]
agggacttagcacaattggctagtcgacggattccaaatccgcaggttc
tgggttcgaatcccagggtccctgcca
1-14tRNA-Gln(ttg)[88886,88961]
aggaggatgggtgaattggttagcacacgggctttgatctccggagtta
gggttcgagtccttatcttctgcca
1-15tRNA-Ser(gga)[89077,89169]
ggtggaatggtcgagcgggttaagacaacaccttgaaagggtgcggccc
cttcaaacgggtccgtaggttcgaatcctacttccaccgcca
1-16tRNA-Ser(gct)[89331,89422]
ggaagattaaccctaacggtaagggatctcttgctaaagagacagtagc
ccccaaaaggggtgtgtcagttcgagtcgacatcttcctcc
1-17tRNA-Ser(tga)[89423,89511]
ggagagcaggctgcatgggtgcagactccggttgaacccgggtcccatcgt
agcgatacggtgacagttcgattctgtgtctctctcca
1-18tRNA-Asn(gtt)[89773,89861]
ggttcttgaccgagaggccgatggttagcaggctgttaacctgccgggag
caatccccgacgaaggttcgaatccttcaggaaccgcca
1-19tRNA-Asp(gtc)[89867,89942]
ggagatatagtttaaacggataaaatacaccctgtcacgggtatgttcc

gggttcgatgcccgtatctccgcca
1-20tRNA-Pro(tgg)[90066,90143]
cggagcgtagcgcagctctggtcagcgtgggtgccttggatgcactgggtc
gcaggttcgaatcctgccgctccgacca
1-21tRNA-Arg(acg)[90149,90223]
gcaggtatagttcaacggatagagcatcagtttacgaagctgagaatcgg
ggttcgaatccctgtatctgcacca
1-22tRNA-Ala(tgc)[90228,90303]
ggggctgtagtttattggataaaatcgaggcttcaccttcgagaact
gagttcgattctcagtggtccacca
1-23tRNA-Leu(tag)[90339,90415]
gggcgattgatggaattggtatagtcgtcggatttagattccgaatttg
ggggttcgagtcacctgtcggccacca
1-24tRNA-Val(tac)[90424,90497]
gcttccttagtttaatggtagaacctgtctttacacggcagttgcggta
gttcgattctaccaggaagtacca
1-25tRNA-Phe(gaa)[90505,90580]
gggggtgtaactcagttggtagagtcctgcctgaagagcagatggtcgg
tggttcgagtcacccggcccccacca

>HM997020.1 Escherichia phage wV7, complete genome

1-1tRNA-Arg(tct)c[69195,69270]
cggggcatagctcagaaggaagcaaggaccttctaagtcctaggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-His(gtg)c[69275,69350]
gtgaccgtagttcagttggtagaactcgagattgtgattctcgtagtc
gggttcgactcccatcggtcaccacca
1-3tRNA-Asn(gtt)c[69465,69539]
ggatgtgtagctcaatggcagagcgcctgttaagcgattgggtata
ggttcgaatcctatcacgtccgcca
1-4tRNA-Tyr(gta)c[69544,69630]
ggggagtatcccgtagaggtagcgggtgtggactgtaaattcattgtcat
tgcgactcgggtggttcgactccaccactccccacca
1-5tRNA-Met(cat)c[69643,69717]
ggcctgtagctggaaggttcaagcaagcgactcataatgccagatggt
ggttcaattccaccagggccacca
1-6tRNA-Thr(tgt)c[69719,69794]
gctgatttagctcagtaggtagagcaactcactgtaatgagaaggtcgg
cgggttcgattccgtcaatcagacca
1-7tRNA-Ser(tga)c[69800,69889]
ggaggtgtggcagagtggttgaatgcaccggtcttgaaccggcagtcg
ctccggcgattcataggttcgaatcctatcacctccgcca
1-8tRNA-Pro(tgg)c[69891,69965]
ctccgtgtagctcagtttggtagagcgcctgattgggatcaggaggtcc
aaggttcaaatccttgatggagac

1-9tRNA-Gly(tcc)c[69976,70049]
gcggatatcgataatggtattacctcagactccaatctgatgatga
gttcgattctcattatccgctcca
1-10tRNA-Leu(taa)c[70055,70141]
gcgagaatgggtcaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttgggttcgagtcacacttctcgacca
1-11tRNA-Gln(ttg)c[70142,70215]
tgggaattagccaagttggaagcatagcactttgactgctagatgcaa
aggttcgagtcctttatcccagc

>JN126049.1 Salmonella phage PhiSH19, complete genome

1-1tRNA-Met(cat)[137303,137378]
ggctctgtagctcagtggttagagcagtcgactcataatcgattggtcat
tggttcaaaccatcaggatcacca
1-2tRNA-Asn(gtt)[137806,137881]
gacgatgtagtcagtcggtagaacggaggactgtaatccatgtcgc
aggttcaagtcctgccatcgcgcca
1-3tRNA-Tyr(gta)[138497,138580]
gtgagtggtgcagagcggtcgaatgcaggagactgtaaatctccccgtaa
cagcgcgggtggttcaaaccatccactcacacca
1-4tRNA-Ser(gct)[138657,138745]
ggaaggtgcccagaggttaagggactcgactgtaatcgagtggggc
tttagccccgaaggttcgaatccttcacctccgcca

>JX536493.1 Enterobacteria phage HX01, complete genome

1-1tRNA-Met(cat)[31995,32069]
ggccctgtagctcaatgggagagctgtcagctcataactgataggtagct
ggatcgaaccagccagggtcacca
1-2tRNA-Arg(tct)[32073,32149]
cgaggcatagctcaattgtatagagcaacggacttctaaccgtaggttg
aaggttagaatccttctgtctcgacca

>JN882287.1 Cronobacter phage vB_CsaM_GAP161, complete genome

1-1tRNA-Met(cat)[49480,49556]
ggcccttagcttaattggttagagcgggtgactcataatcgcgcggttg
ctggttcaagtcagcaggggccacca
1-2tRNA-Gly(tcc)[49562,49637]
gcaggtgtagttcaattggtagaatatctggttccatccagattgttga
gggttcgagtccttcacctgctcca

>JQ686190.1 Staphylococcus phage GH15, complete genome

1-1tRNA-Met(cat)c[15353,15424]
ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[37771,37842]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[37849,37921]

ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[37927,38002]
tggctcattggtgtaactggttaacacactgccctgtcacggcagagagt
acgagttcaggtctcgtatgagtcgt

>JN371769.1 *Synechococcus* phage metaG-MbCM1, complete genome

1-1tRNA-Leu(taa)[17905,17989]
gggagtggtggcgaataggttagacgcaccagacttaaaatctgttagca
tgtgctcgtgggagttcaagtctccctactcctac
1-2tRNA-Arg(tct)[159596,159670]
tgggtcagtagcacagcggatagtgaactgccttctaagcagtcggtcg
caggttcaaatcctgcctgacccgt

>JN377894.1 *Aeromonas* phage Aes508, complete genome

1-1tRNA-Arg(tct)c[60935,61011]
ggtctcttagctcagtcggatagagcagcggccttctaagccgcggtca
ttggtcgaatccaatagggactgccca
1-2tRNA-Met(cat)c[61580,61655]
ggccctctgcacagctctgtaatgtgccagctcatalaactggggaagcc
gggttagattcccgggaggccacca
1-3tRNA-Met(cat)c[61821,61897]
tgcgatgtagaggagaggtcgtcctcgtcgggctcatatcccgaatca
gcggttcgaatccgttcacgcctcca
1-4tRNA-Asp(gtc)c[61910,61983]
ggagccatagttatttggtaaaatagctcccctgtcacgggtcagcacc
gagttcgatcctcgggtggctccgc
1-5tRNA-Thr(tgt)c[62384,62459]
gccggttagctcatctggtagagcacagccttgaacgctggggtggt
ccgttcgagtcggacaatcggcacca
1-6tRNA-Pro(tgg)c[63093,63167]
ctcagcgtaggcaagtggtatgtcgttccgttggggcggaattttcggg
tgttcgattcaccctgagacca
1-7tRNA-Gly(tcc)c[63413,63488]
gcgatattagctcagttggtagagcttctgattccaatcagaatgtcat
cggttcgagaccgatatacgtcca
1-8tRNA-His(gtg)c[63500,63574]
gtgacctagtagtaatggtagctatcctggatgtgaccaggagtagc
ggttcgaacccgtaggtcacccca
1-9tRNA-Tyr(gta)c[64544,64634]
ggatactcggctacgatggcggtagcggcagactgtaaatctgttccc
tcagggcaaacaagatggttcgaatccatcagtatccacca
1-10tRNA-Asn(gtt)c[64648,64730]
ggtgatgtagcataacggccatgcggccggtgttaaccggtgaggaaac
tctacgttgggtcgactccaaccatcaccgcca
1-11tRNA-Ser(tga)c[64899,64992]

ggaagattggcccgagttggtttaaggcaccggtcttgaaaaccggcga
cgtaggaatacggatccatccgttcgaatcgatatcttctcca
1-12tRNA-Leu(taa)c[65184,65269]
gcaagtatggtggaattggtatacactggagactaaaatcttcgcct
tcgggattgtgggttcgagtcctcactactgcacca

>GU988610.2 Pseudomonas phage JG004, complete genome

1-1tRNA-Gln(ttg)[22657,22730]
tgccgcttcgttcaatggtaggacgccagacttgaatctggagatgatg
gttcgatcccatcagtggtgccca
1-2tRNA-Arg(tct)[23036,23110]
gctcgtatagttaatggatgcacaacggccttctaagccgtaaggtcta
ggttcgagtcctagatagcgcca
1-3tRNA-Lys(ttt)[23118,23194]
tggacggaagctaaagtgatcagcatctggctttaaccagacttatag
tgagttcgagtcacccgttcaacca
1-4tRNA-Leu(tag)[23469,23553]
ggccctgtggtggaattggtatacacatcagtcctagaaactgacccga
gaggattgagggttcaagtcctccggggccacca
1-5tRNA-Ile(gat)[23764,23839]
ggccagatagctcaattggtagagccccgaccgataatcggtggttga
aggttcaagtccttctctggccacca
1-6tRNA-Asp(gtc)[23849,23927]
ggccattagctcagtcctggactagagcaagcccctgtctagggaaggt
cgccggttcgaatccggcatgggtgccca
1-7tRNA-Met(cat)[24028,24102]
agcgttaagactggctggcgctgtcactcggctcataaccgaatacaagt
ggttcgattccacctctcgctcca
1-8tRNA-Cys(gca)[24337,24412]
cccgcgttgccgagaggttagcgggcggttgcaaatccgtctcacat
cggttcaaatccgatacgggtcca
1-9tRNA-Asn(gtt)[24423,24498]
tgggatgtagctcagttggtagagcaggagctgtaactctcaggtcgc
aggttcgagccctgccgtcccagcca
1-10tRNA-Pro(tgg)[24562,24639]
ctctcgtagctcagtcctggttagagtgctggatttggaatccgaaggtc
gaaggttcaaatcctccgggtgacca
1-11tRNA-Gly(tcc)[24646,24721]
gcgggtatagctcagttggtagagcgtctgcctccaagcagttcgtcgt
cggttcgagtcctctatccgtcca
1-12tRNA-Phe(gaa)[24728,24804]
gggactgtagctcagaaggttagagcgggtgattgaaatcccacaggtcg
ggcgttcgattcggccgggtcccacca
1-13tRNA-Glu(ttc)[24811,24886]
gcagttatagattaattggttaaatgccagacttcaatctggtgtcc

gggttcgatccccggttaactgctcca
1-14tRNA-His(gtg)[24947,25021]
gtggagattgtgtagcccgatgctgccttcggtgtgacccgattgt
ggggttcgagtcctccaacc
1-15tRNA-Thr(tgt)[25208,25282]
gccctttaagcatttatggtagtcaccggcttgaacccggcgaattc
tgttcaagtcaggaatggggcacca

>JN371768.1 *Synechococcus* phage S-MbCM6, complete genome

1-1tRNA-Leu(taa)[17220,17306]
tgggagtggtggcggaatcggtagacgcaccagactaaaatctgtgaga
attaatctcgtgggagttcaagtcctactcccat
1-2tRNA-Thr(tgt)[19061,19133]
gcctccgtagctcagtggtagagcagggtttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-3tRNA-Asn(gtt)[19138,19210]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tgggtcagtcagggtggaggag
1-4tRNA-Arg(tct)[158217,158291]
tgggtcagtagctcagcgatagaccacgcacttctaatacggttggtcg
cagggtcgattcctgcctgactcgt

>JN673056.1 *Escherichia* phage PhaxI, complete genome

1-1tRNA-Met(cat)[136135,136211]
gggtctgtagtttaataggttagaacaacggactcataatccgtcaggtc
tcagttcaaatctgggtggaccacca
1-2tRNA-Asn(gtt)[136693,136768]
gacgatgtagttcagtcggtagaacgggtgactgttaatccatatgtcgc
aggttcaagtcctgccatcgtcgcca
1-3tRNA-Ser(gct)[137453,137541]
ggaagggtgcccagaggtttaagggactcgactgtaatacgagtggggc
tttagccccgaaggttcgaatccttcacctccgcca

>JQ362498.1 *Sphingomonas* phage PAU, complete genome

1-1tRNA-Asn(gtt)[1273,1347]
tatctttagctcagctggtagagcaagtgactgttaatcactaggtcg
atggttcgaatccaatccaagtagc
1-2tRNA-Trp(cca)[1352,1425]
agggatatagctcagctggtagagcaatggctccaaaaccatcggtcgg
tagttcgaatctatctgtccctgc
1-3tRNA-Cys(gca)[1431,1508]
gcacatatgggtgagtcaggtcaaaagcaacggctcgcaaaaccgtacaa
ccattggttcgaatccaattatgtgctc
1-4tRNA-Met(cat)[1518,1592]
tgcgggtagagcagatggagtgtcgcgggtctcataagcccaggtca
tgggttcgagtcctccctgctac
1-5tRNA-Met(cat)[1598,1672]

gctccttagctcagttggtcagagcaacagactcataatctgaaggtca
taggttcaagtcctgtaggagcac
1-6tRNA-Met(cat)[1681,1754]
agctcttctagctcaattggtagagttagattcattatctattggata
tgggttcgaatcccatgagagcgc

>JN202312.1 Enterobacteria phage ime09, complete genome

1-1tRNA-Arg(tct)c[69044,69119]
cgaggcatagctcagaaggaagagcaaggaccttaagtcctagggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-Asn(gtt)c[69124,69198]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattgggtata
ggttcgaatcctatcacgtccgcca
1-3tRNA-Tyr(gta)c[69203,69289]
ggggagttatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[69303,69377]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggttcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[69379,69454]
gctgatttagctcagtaggtagagcaactcacttgaatgagaaggtcgg
cgggtcgattccgtcaatcagcacca
1-6tRNA-Ser(tga)c[69460,69549]
ggaggcgtggcagagtgggttaatgcaccggcttgaaaaccggcagtcg
ctccggcgactcataggttcaaactcctatcgctccgcca
1-7tRNA-Pro(tgg)c[69551,69625]
ctccgtgtagctcagtttggtagagcgctgatttgggatcaggaggtcc
aaggttcaaatccttgtatggagac
1-8tRNA-Gly(tcc)c[69636,69709]
gcggatatcgataatggattacctcagactccaatctgatgtga
gttcgattctcattatccgtcca
1-9tRNA-Leu(taa)c[69715,69801]
gcgagaatggccaaattggtaaaggcacagcacttaaaatgctcggaat
gatttccttgggttcgagtccttctcgacca
1-10tRNA-Gln(ttg)c[69802,69875]
tgggaattagccaagttggtaaggcactggattttgattccaggatgcaa
aggttcgagtcctttattcccagc

>JQ245707.1 Cyanophage S-TIM5, complete genome

1-1tRNA-Pro(tgg)[15402,15476]
cgggaattagcgcagtttggtagcgcgctgcttgggagcaggatgcca
caggttcaaatcctgtattcccagc
1-2tRNA-Arg(tct)[17047,17122]
tggttcagtagctcagttggatagagcaactgccttctaagcagtcggtc
gctggttcgagtcagcctgaatcgt
1-3tRNA-Ile(tat)[23166,23237]

gggactgtcgctaaaggtaaaggccctctgcttataacggagtgatctg
ggttcaagtcaggcagtccta
1-4tRNA-Met(cat)[23240,23314]
gtcctttagcaatctggtagatgcagcgaactcataattcgcctaaggt
gtgtcgatccacacaaggagcacc
1-5tRNA-Leu(taa)[23322,23405]
gcgagtatggcggaatcggtagacgcaccagacttaaaatctgttgggca
ttagcccggtgggagttcaagtcctcactcgca
1-6tRNA-Asn(gtt)[26444,26515]
tcccaagtagctcagtggcagagcccgactgttaatcggtggtcgct
ggttcaaatccagccttgggag
1-7tRNA-Thr(tgt)[26519,26591]
gcctacctagctcagctggtagagcaggcctttgtaaagctcaggtcgt
cggttcaagtcgctcggtaggct
1-8tRNA-Leu(tag)[26911,26996]
tgcgcaagtggcggaattggtagacgccaggttttagttacctgtgccc
tagtggcgtgaaggttcaagtccttcttgcgcac
1-9tRNA-Gly(tcc)[27617,27689]
gcggagttagttcagcggtagaacgctatcctccaagttagatgtcgtc
ggttcgattccgatactccgctc
1-10tRNA-Val(tac)[28879,28952]
tgcaagattagctcagcggtagagcatctgttacaccgaggcggtcgg
cggttcaatccgctcatcttgcac

>HE815464.1 Campylobacter phage CP21 complete sequence

1-1tRNA-Thr(tgt)c[166676,166751]
gcctgattagctcaactggtagagcattcgcttgaagcgaaaggttga
gagttcgagtctctcattaggtcca
1-2tRNA-Pro(tgg)c[167466,167543]
cggggtgtagcgagctgtgtagcgacttggttgggaccaagggggcc
gaaggttcgaatccttccacccgacca

>HE983845.1 Pseudomonas phage vB_PaeM_C2-10_Ab1 complete genome

1-1tRNA-Gln(ttg)[21995,22068]
tgccgcttcgttcaatggtaggacgccagacttgaatctggagatgatg
gttcgatcccatcagtggtgcca
1-2tRNA-Arg(tct)[22274,22349]
gctcatatagttaatggacagcacacggcttctaagccgtaaggtct
aggttcgaatcctagtagagcgcca
1-3tRNA-Lys(ttt)[22357,22433]
tggacggaagctaaagtggatcagcatctggcttttaaccagacttatag
tgagttcgagttcaccggttcaacca
1-4tRNA-Leu(tag)[22695,22779]
ggccctgtggtggaattggtatacacatcagtttagaaactgacgccga
gaggattgagggttcaagtcctccggggccacca
1-5tRNA-Ile(gat)[22986,23061]

agccggatagctcaattggtagagcaccgaccgataatcggatggtga
 aggttcaagtccttctctggctacca
 1-6tRNA-Asp(gtc)[23071,23149]
 ggccattagctcagtcctggactagagcaagcccctgtctagggaaggt
 cgtcggttcgaatccgacatgggtcgcca
 1-7tRNA-Met(cat)[23250,23324]
 agcgttaagactagctggagctgtcactcggctcataaccgaatacaagt
 ggttcgattccacctctcgcttcca
 1-8tRNA-Cys(gca)[23561,23636]
 ccctcgttggccgagaggatcaggcagcagattgcaaatctgccatacat
 cggttcaaatccgatacagggtccta
 1-9tRNA-Asn(gtt)[23646,23722]
 tccgtacggcccatcaaggcgtggggctcggtgttaaccgaaacgcgc
 taggttcgattcctaggtacggagcca
 1-10tRNA-Pro(tgg)[23785,23862]
 ctctcgtagctcagtcctggtagagtgtcggatttggaaatccgaaggtc
 gaaggttcaaatcctccgggtgacca
 1-11tRNA-Gly(tcc)[23870,23946]
 gcgggttctgtatagctcgttattattcttggtccaccaagagact
 agggttcgaatccctaagcccgacca
 1-12tRNA-Phe(gaa)[24009,24084]
 gcgtctgaagctaactaggtagaagcaccgggttgaaatccggaggact
 tggatcgttaccgaagcggcgacca
 1-13tRNA-Glu(ttc)[24091,24166]
 gcagttatagattaaatggataaatcgccagactttcaatctggtgtcc
 ggggtcgaatcccggttaactgtcca
 1-14tRNA-His(gtg)[24227,24301]
 gtggagattgtgtagcccgatgctgccttcggtgtgaccgattgtt
 ggggttcgagtcctccctcaacc
 1-15tRNA-Thr(tgt)[24488,24562]
 gcccttaagcatttatggtgatgcaccggctttgtaaccggcgaattc
 tgttcaagtcaaggaatgggcacca
 >HE600015.1 Dickeya phage vB_DsoM_LIMEstone1 complete genome
 1-1tRNA-Met(cat)[12994,130070]
 gatggtgtagttcagttggttagaacgtgcgactcataatcgctttgtca
 ctggttcaagtcctgcccatcgcca
 >JQ177062.1 Bdellovibrio phage phi1422, complete genome
 1-1tRNA-Pro(tgg)[15181,15256]
 cggggattggagaagttggagttctcgcgtttttgggaacatgagatc
 acaggttcaaatcctgtatccccgac
 >JQ031132.1 Enterobacteria phage vB_EcoM-FV3, complete genome
 1-1tRNA-Pro(tgg)c[61201,61277]
 ctccgcgtagctcagcttggtagagcgctgatttgggatcaggaggtcg
 agtgttcgaatcactccgtggagacca

1-2tRNA-Met(cat)c[61289,61363]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagacggt
ggttcaattccaccagggccacca
1-3tRNA-Thr(tgt)c[61365,61440]
gctgatgtagcacaattggtagtgaattgattgtaataataggttgc
agggtcagtcctgctatcagcacca
1-5tRNA-Ser(tga)c[61643,61733]
tgagggtaggagcaatggtgctcaagcgtcttgaaccgtcccgttg
aggatgactcgatgatggttcgattccattaccctcagcca
1-6tRNA-Tyr(gta)c[61848,61934]
ggggagtatcccgtagaggtagcgggtgtagactgtaaatctattgtcat
tgcgactcgggtggttcgactccaccactccccacca
1-7tRNA-Arg(tct)c[61939,62013]
gccctgtagcttagtgataaagcagcgcccttctaagccgttgacact
ggttcgagtcagtaggggtgcca

>JQ513383.1 Enterobacteria phage vB_KleM-RaK2, complete genome

1-1tRNA-Leu(taa)[176487,176574]
ggccgtatgtccaaattggtaaaggagacagacttaaaatctgttggtga
tattcaccttctcgattcgagtcgagtcgcgctacca
1-2tRNA-Gly(tcc)[176941,177016]
gcgggtatcgataaaggctattacctcggttttccaaaccgatgatgag
ggttcgacgtccctctaaccgtcca
1-3tRNA-Arg(tct)[178303,178376]
gtccccttagttcagttggatagaacaactgccttctaagcagtaggtca
ctggttcgagtcagtaggggata
1-4tRNA-Ser(gct)[178529,178617]
tagtgagttggatgagtggtgaaatcaccaccctgctaaggtggcatat
gcgaaagcgtatcgtgggtcgaatcccacactcactgt
1-5tRNA-Ser(tga)[178680,178767]
ggaaggatggccgagtggtttaaggcactggtcttgaaccagcaatcc
gaaagggttctagagttcaaatctctatcctccacca
1-6tRNA-Met(cat)[178885,178962]
ggccctttactctcaagtgggttagagaatccgactcataatcggtaggct
ctgagttcgaatctcagaagggccacca
1-7tRNA-Asn(gtt)[179699,179772]
gactctgtagcacaatcgggtgctgattgactgttaataatggttgg
ggattcgagttcctccagagtcgc
1-8tRNA-Thr(tgt)[182045,182119]
accgccttagaacaattggtagtgaactgattgtaatacagtaggtta
tatgttcgagtcagataggtggcac

>JX123262.1 Aeromonas phage CC2, complete genome

1-1tRNA-Leu(taa)[197457,197549]
gcgtgagtggcgaagttggtgaaacgcacgcgacttaaaatccgatact
gcataatggcacatcgtgggttcgattccacctcacgcacca

1-2tRNA-Arg(tct)[198613,198689]
gcgctgtagctcagttggatagagcaacgttcttctaaagcgtgggtca
ctggttcgaatccagtagcgccacca

1-3tRNA-Leu(tag)[198690,198773]
cgggatgtggtgaaattggcagacacactagatttaggtctagcgccat
aggcgtgacggttcgagtcctccatcccgacca

1-4tRNA-Gly(tcc)[198775,198850]
gcgggtaaggtgttatggatacatgcaagcctccaagtttgagtagac
cggatcgttaccggctacccgctcca

1-5tRNA-Met(cat)[198935,199011]
ggccccttagctcagttggtagagcagccgactcataatcggttggtca
ctggttcgagtcagtaggggccacca

1-6tRNA-Met(cat)[199377,199454]
agcggggtggagaagtgcaggagttctcaccagactcattatctggaaatc
ggtggttcaaataccactcccgctcca

1-7tRNA-Asn(gti)[199456,199532]
tggcgtgtaactcagtaggttagagtgccggactgttaatccgtatgtcg
tgggttcgaatcccacctcgccagcca

1-8tRNA-Tyr(gta)[199538,199628]
ggatgttcggctacgatggcggtagcggcgactgtaaatccgttccc
tctgggtaacaagttggttcgaatccaacagcatccacca

1-9tRNA-Pro(tgg)[199782,199857]
cgggtattagcgcagttggtagcgcgtctggttgggaccagagggtcac
aggttcgagtcctgtatcaccgacca

1-10tRNA-Thr(tgt)[200134,200209]
gccgggttagctcagttgatagagcgacggtcttgaatccgtaggtcgt
gggtttgagtcacactcggctcca

1-11tRNA-Trp(cca)[200764,200838]
agggtgttagtatagtggtattatgccggattccaaatccgtgcgactgg
ggttcgaatcctcaacgccctgcca

>JX878671.1 Staphylococcus phage JD007, complete genome

1-1tRNA-Asp(gtc)[50343,50418]
tggctcattggtgtaactggttaacacactgccctgtcacggcagagagt
acgagttcgagtcctgtatgggtcgt

1-2tRNA-Phe(gaa)[50424,50496]
ggtttcttagctcagatggttagagcactagattgaagctctaggtgtcat
tggttcaaataccaatagaaccca

1-3tRNA-Trp(cca)[50503,50574]
acacccttagtataattagtagtacaagggtctccaaacccttagtctt
tgtgcaaatcaaagagggtgtg

1-4tRNA-Met(cat)[72975,73046]
ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
ggttcgagtcctgcagagtcca

>HQ832595.1 Pseudomonas phage PaP1, complete genome

1-1tRNA-Gln(ttg)[20964,21037]
tgccgcttcgttcaatggtaggacgccagactttgaatctggagatgatg
gttcgatcccatcagcggctgcca
1-2tRNA-Arg(tct)[21243,21317]
gctcgtatagttaacggatgcacaacggtcttctaagccgtaaggtcta
ggttcgaatcctagatagagcgcca
1-3tRNA-Lys(ttt)[21325,21401]
tggacggaagctaaagtggatcagcatctggcttttaaccagacttatag
tgagttcagatctcaccgttcaacca
1-4tRNA-Leu(tag)[21665,21749]
ggccctgtggtggaattggtatacacatcagcttagaaactgacgccga
gaggattgagggttcaagtcctccggggccacca
1-5tRNA-Ile(gat)[21963,22038]
agccggaatagctcaattggtagagcaccgaccgataatcggatggttga
aggttcaagtccttctctggctacca
1-6tRNA-Asp(gtc)[22048,22126]
ggccattagctcagctctggactagagcaagcccctgtctagggaaggt
cgtcgggtcgaatccgacatgggtcgcca
1-7tRNA-Met(cat)[22227,22301]
agcgtaagactggctggcgtgtcactcggctcataaccgaatacaagt
ggttcgattccacctctcgctcca
1-8tRNA-Cys(gca)[22537,22612]
cccgcgttggccgagaggttagcgcggttgcaaatccgtctcatat
cggttcaaatccgatacgcggctcca
1-9tRNA-Asn(gtt)[22623,22698]
tgggatgtagctcagttggtagagcaggagctgtaactctcaggtcgc
aggttcgagccctgccgtcccagcca
1-10tRNA-Pro(tgg)[22762,22839]
ctctcgtagctcagctcgttagagtgctgatttggaatcagaaggtc
gaaggttcaaatccttcgggggtgacca
1-11tRNA-Gly(tcc)[22846,22921]
gcgggtatagctcagttggtagagcgtctgcctccaagcagttcgtcgt
cggttcgagtcgtctatccgtcca
1-12tRNA-Phe(gaa)[22928,23004]
gggactgtagctcagaaggttagagcgggtgattgaaatcccacaggtc
ggcgttcgattcggccgggtcccacca
1-13tRNA-Glu(ttc)[23011,23086]
gcagttatagattaaatggttaaatcgccagactttcaatctggtgtcc
gggttcgatccccggttaactgtcca
1-14tRNA-His(gtg)[23147,23221]
gtggagattgtgtagcccgatgctgccttcggtgtgacccgattgtt
ggggttcgagtcggcctccaacc
1-15tRNA-Thr(tgt)[23408,23482]
gccctttaagcatttatggtgatgcaccggcttgaacccggcgaattc

tgttcaagtcaggaatggggcacca
 >JF974288.1 *Synechococcus* phage S-RIM8 A.HR1, complete genome
 1-1tRNA-Gly(tcc)[13713,13787]
 cgggatgtaattcagtggtagaatgtcagccttccaagctgaacgtcagg
 gggtcagagtccttatccgtcca
 1-2tRNA-Val(tac)[13788,13859]
 gggcgattaactcagcggtagagtcctcgtttacaccgagtatgtcggg
 gggtcgaatccctcatcgccca
 1-3tRNA-Leu(taa)[18355,18440]
 tgggacgggtggcgaatcggtagacgcaccagactaaaatctgttgggc
 aatagcccgtgagagttcaagtctctcgtcctat
 1-4tRNA-Thr(tgt)[19096,19172]
 gcctccgtagctcagctggatagagcaacggtttgtaaaccgtaggctcg
 tcggttcaagtcgaccgtgggtcca
 1-5tRNA-Ala(tgc)[19173,19245]
 ggggaattagctcagttggtagagcgctgttgcaagcaggatgtcag
 cgggtcagtcgctatttcca
 1-6tRNA-Asn(gtt)[19270,19344]
 ttctctatagctcagtcggtagagcgtttgactgttaatcaaaatgtcc
 ctggttcgagcccaggtggaggagt
 1-7tRNA-Arg(tct)[156607,156682]
 tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
 acaggttcgagtcctgtctgacctgt
 1-8tRNA-Pro(tgg)[157690,157764]
 cggggtgtagcgcagcttggtagcgcggttgcttgggagcaataggtcg
 caggttcgaatcctgtcaccggac
 >HE956709.1 *Yersinia* phage phiR1-RT complete genome
 1-1tRNA-Gly(tcc)c[72343,72418]
 gcagagttcgtagtggttaatactattggttccgccagtaaaca
 cgggtcgaatccgatactctgtcca
 1-2tRNA-Trp(cca)c[72671,72745]
 aggtcttagtatagtggcgattatgctaggctccaaacctagtgacggg
 gttcgattacccaaggcctcca
 1-3tRNA-Arg(tct)c[74027,74103]
 gtctcatagctcaacaggacagagcaacggtcttctaaaccgtagggtg
 ctggttcgattccagctggggacacca
 1-4tRNA-Met(cat)c[74902,74978]
 ggcccttagctcagatggttagagcagtcgactcataatcgattgtca
 ctggttcaaatccagtaaggccacca
 >JX181829.1 *Salmonella* phage SKML-39, complete genome
 1-2tRNA-Ser(gct)c[145196,145284]
 ggaaggttccccgagaggtttaagggactcgactgctaatacagtggggc
 ttttagccccgaaggttcgaatccttcacctccgcca
 1-3tRNA-Asn(gtt)c[145768,145843]

gatggtagttcagtcggtagaacggcggtctgttaaatcgtagtcgc
aggttcaaactcctgacaccatcgcca
1-4tRNA-Arg(tct)c[147533,147608]
tgttccctagctcaattggatagagcataggatttctaactccttggtt
gcaggttcgaatcctgcgggaaacgt
1-5tRNA-Met(cat)c[147620,147696]
ggcctgtagctcagtcggttagagcagtcgactcataatcgattggta
ttggtcaaaccatcaggatcacca
>HQ918180.1 Klebsiella phage KP27, complete genome
1-1tRNA-Met(cat)[49034,49110]
ggccccttagctcaataggttagagctaatacactcataatggtaggttcc
cggttcaagtcacgggagggccacca
>JX238501.3 Bacillus phage phiAGATE, complete genome
1-1tRNA-Met(cat)c[119285,119360]
tgggtctctagcttagtggttaaagctgccagctcataactggaagagag
ggggttcgaatcccttgggacccatc
1-2tRNA-Glu(ttc)c[120905,120976]
gtggtcttagtttaatatagaacagctctgtttcgccagacaggtagcg
gttcaactcccttagaccaacc
1-3tRNA-Phe(gaa)c[122052,122126]
tggactggtagctcagtcggttagagcaggggctgaaaatccctgtgtcg
gaggttcgaacccttctcagtcctat
1-4tRNA-Asn(gtt)c[122474,122547]
ttgtcgataactcaatggttagagtgttactgttaatacaagaattgt
aggttcgagtcctactacgacagt
>JX878496.1 Serratia phage phiMAM1, complete genome
1-1tRNA-Pro(agg)c[19252,19325]
cgggaagtagtttagcggtaaaacgcaagcacagggtgcttgagtcctag
gttcgaatcctagactcccggcca
1-2tRNA-Met(cat)c[19329,19404]
agtccttagctcagtggttagagcatcgactcataatcgcttggtcgt
tggttcaaagccaacagggactacca
1-3tRNA-Cys(aca)c[21050,21141]
tggccggtagctcaattggttagagtggcgcgctacagcctgagcgac
attagcgcgatgttgggttcgagaaccaccccgccaccc
>JQ015307.1 Pectobacterium phage phiTE, complete genome
1-1tRNA-Cys(gca)[105433,105507]
gcaacgttgccggagtaggtaacggctctcgctgcaaacgagatgttca
ctggttcaaatccagtacgttgctc
1-2tRNA-Leu(caa)[105511,105590]
gccctctggcccaacaaaaggttagaggctctgcttcaaacggcaggag
ttcccggttcgaccccgaggaggaccca
1-3tRNA-Tyr(gta)[106329,106410]
ggggacgtggcagagcggtcgaatgcactgtactgtaaatcggtatccc

acacgggtggtcgaatccacccggctccacca

>HQ331142.1 Salmonella phage S16, complete genome
 1-tRNA-Arg(tct)c[61310,61386]
 cgaggcatagcttaatagatatagagcaacggcttctaaacgtaggttg
 aaggtagaatccttctgtctcgacca
 1-2tRNA-Gln(ttg)c[62011,62086]
 tgggaattagccaagttgtaaggcaccggattttgattccgggatgcac
 tggtcgagcccagattcccagcca
 1-3tRNA-Met(cat)c[62093,62167]
 ggcccttagctcaatgggagagctgtcagctcataactgataggtagct
 ggatcgaaaccagcaagggccacca

>KC465899.1 Pelagibacter phage HTVC008M, complete genome
 1-tRNA-Gly(acc)[91140,91213]
 gcgggtgtggtatagaagtattacgccagttaccaaactggaaatgcag
 gagcgttacctgccatccgtcca

>HQ634157.1 Vibrio phage 11895-B1 genomic sequence
 1-tRNA-Tyr(gta)c[103393,103476]
 ggggtgtgggtgaattgggtaaaccagcagactgtaaactgccgcctc
 tggcatccaagttcgagcttgggcaaccacca
 1-2tRNA-Pro(tgg)c[103479,103555]
 ctccgtagctcagtttggtagagcgcatcattgggatgatgaggtct
 gatgttcaaatcatcatcgaggacca

>HQ316583.1 Cyanophage S-SSM4 genomic sequence
 1-tRNA-Val(tac)[1514,1585]
 gggagattagctcagcggtagagctattcgtttacaccgaatcggtcatt
 ggttcaagtccaatatctcca
 1-2tRNA-Leu(taa)[6709,6790]
 gggagcatggcggaatcggtagacgcatcgacttaaaatccgctgaggt
 aactcgtgggggttcaagtccccctgctccta
 1-3tRNA-Arg(tct)[150850,150924]
 tggtcagtagctcagcggaaagagcaactgccttctaagcagttggcca
 taggttcaaatcctatctggatcgt

>JQ797329.1 Listeria phage vB_LmoM_AG20, complete genome
 1-tRNA-Met(cat)c[25833,25906]
 ttgtcccgtagctagaaggtcgagcaaggagctcataactcctcggtttg
 ggttcgattcccaacggggcaatc
 1-2tRNA-Pro(tgg)c[26799,26873]
 cagggttagctcagtttggtagagtacccgcttggagacgggaagtc
 gtaggttcgaatcctaccacctga
 1-3tRNA-Arg(tct)c[27991,28061]
 gtcttatggtgtagcggatgcacaagggttctactcccttagcgcgg
 gttcgaatcctgctgaggact
 1-4tRNA-Gly(tcc)c[28319,28389]
 gcgggtatagtataagggtagtagccaaggtttccaacctgtagtgggg

gttcgaatccccctaccgct
 1-5tRNA-Asn(gtt)c[28458,28531]
 gtgtccttaactcagaggtcagagtgccgtcctgtaagtcggaagtcgc
 tggttcaatccagcaggatacgc
 1-6tRNA-Ser(tga)c[28541,28632]
 ggaagggtgtagagcttggaatacgcctgcttgaactagtttacc
 cttggaatacagggtacaagggttcgaatcccttaccttcct
 1-7tRNA-Phe(gaa)c[28645,28716]
 gtagtcctagctgagatggattagcgttgcttgaagcaagcgaggca
 ggttcgatacctcggactcca
 1-8tRNA-Lys(ttt)c[28722,28793]
 ggagttatggtgaaatggctatcactgcgggttttaccctgtattcta
 ggttcgaatcctagtggtcca
 1-9tRNA-Trp(cca)c[28918,28991]
 taggggtgtagtttatctggtaaaatattggttccaactccaatgaggt
 ggggtcaagtcctactatccctgt
 1-10tRNA-Gln(ttg)c[28993,29065]
 tggctgtgaaccaagcggtgaaggcaacggatttgattccgtgatacgtt
 ggttcgagtccaactagaccagc
 1-11tRNA-Thr(tgt)c[29084,29155]
 gcttgtagtcaattggtagaacagtgggtttgtaagcctcagcgtg
 ggttcaagtcctactacaagca
 1-12tRNA-Tyr(gta)c[29237,29318]
 gtgccattcgcatagtggaattgcaggggactgtaactcccctcccttc
 ggggttccaaggttcgagtccttgatggcaca
 1-13tRNA-Leu(tag)c[29639,29723]
 tgccgagatggtggaactggtatacaggtagacttagaatctattgtcc
 caaggatatgtgggttcgaatcccactctcggat
 1-14tRNA-Asp(gtc)c[30189,30261]
 gtgcgtatgatataatggctattatactcgactgtctatcgagaaatagg
 ggttcaattccccttacgtgcgc
 1-15tRNA-Ile(gat)c[30365,30437]
 gccagcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
 ggttcaattccaagtgttggtac
 1-16tRNA-Ser(gct)c[30614,30700]
 ggagagttgtcagagaggcttaatgatacgggttgctaactcgttgact
 agtaatagtlaccaagggttcgaatcccttactctcct
 1-17tRNA-Cys(gca)c[30779,30849]
 gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
 gttcaattcccattaccgct

>HQ634193.1 Cyanophage P-RSM6 genomic sequence

1-tRNA-Leu(taa)c[38808,38883]
 tgggagtgtagcccaatcggcagaggcagcagacttaaaatctgcacagt
 gtgggttcgaatcccaccactcctat

1-2tRNA-Arg(tct)c[38885,38960]
tgactcagtagctcagtggaacaagagcatcgctcttctaaagcgttggtc
gtaggttcgaatcctacctgagtcgt
1-3tRNA-Ile(tat)c[38964,39037]
gggactatcgctattggtaaggctcactgcttataacggcggaactg
ggttcgattcccagtagtcctacc

>JX094431.1 *Bacillus cereus* bacteriophage vB_BceM_Bc431v3, complete genome

1-1tRNA-Met(cat)c[155868,155942]
taggattatagctcagtggtagagcgtgggtctcataagcccagggtcga
tggttcgatcccatctattcctatc
1-2tRNA-Leu(tag)c[156094,156178]
tgtcgaagtgttgaactggatacatgcggcacttaggatgccgtgcct
tcgggattgtgggttcgactcccaccttcgacatc
1-3tRNA-Ile(gat)c[156186,156262]
actagtgtagctcagtcaggtagagcagtgcttgataaggcattggta
caggttcgaatcctgtcactagtagca
1-4tRNA-Leu(taa)c[156266,156352]
atcggagtggtggaattggtagacatatggcacttaaaatgctatgtccg
tatggacgtaagggttcgagtccttctccgatacca
1-5tRNA-Tyr(gta)c[156356,156438]
gggcgtgcaatcattggagagataagctgactgaaatcagtggtcattg
actgtggaggttcgaatcctccattcccacca
1-6tRNA-Phe(gaa)c[156445,156519]
ggacagatagctgagacggattagcgattggctgaaaaccaatagagggt
ggatcgttaccaactctgtccacca
1-7tRNA-Pro(tgg)c[156620,156692]
acgggtgtaggctagaggtcagtcactgcgtttggggcgagatcacgtt
ggttcgatccaaccactcgta
1-8tRNA-His(gtg)c[156701,156774]
cagtggtggtgaagtggcttaacacggacgactgtggatcgtctattcg
ctggttcgaatccagtcattgctga
1-9tRNA-Gln(ttg)c[156851,156927]
tttcggagtggaactggtaaagtcgcttggtttgacccaagagcgt
gaaggttcgaccccttctccgaagtc
1-10tRNA-Ser(tga)c[157005,157094]
cggggaataactcaagtggataaaagaggttagtcttgaaaactaatagc
gtgtgaaagcgtgcgggggttcgaatccctcttctcggc
1-11tRNA-Arg(tct)c[157152,157227]
taccctttagccaagtggactaaggcaacgggcttctatcccgtggatc
gtgggttcgattcctacaggggtgt
1-12tRNA-Ile(tat)c[157347,157420]
atccctttagccaagcgggttaaggcagtaggattatgtcctacgtatcgg
gagttcgaacctccaagggcgc
1-13tRNA-Asp(gtc)c[157422,157495]

tggggatatagtgtagtggtaaacacgcacggctgtctaccgtgaagcac
gggttcgaatcccgttatcctcgt

1-14tRNA-Glu(ttc)c[157499,157575]

gtcgatttggtgaaattggctaacacactcggctttctaccgagcattca
gggttcgaatcccctatcgatacca

1-15tRNA-Asp(gtc)c[157585,157659]

ggcttgtagtatatgggttaacacacttgcctgtcacgcaagagaaacg
ggttcgagtcctgtacaggccgcca

1-16tRNA-Thr(tgt)c[157665,157741]

gccttctagctcagttggtagagcgactgccttgaagcagtaggtcg
tgggttcgattcctacagtcggcacca

1-17tRNA-Gly(tcc)c[157746,157821]

ggggcattagtatatcggttaattattcctggctccaaccaggggaggt
cgggttcgattccgacatgtccctcca

1-19tRNA-Cys(gca)c[158134,158206]

gaggacgtaccgaaatgggttaacgggctaggtgcaaccctagatttcgc
tgggtcgaatccagtcgttctct

1-20tRNA-Ser(gct)c[158216,158304]

ggaagggtactcaagttgggaagaggtcaacctgctaagttgatagtac
ctattgtaggtagcgagggttcgaatccctttccttct

>JX561091.1 Escherichia phage phAPEC8, complete genome

1-1tRNA-Met(cat)[59143,59217]

ggccctgtagctcaatgggagagctgtcggctcataaccgatagtagct
ggatcgaaaccagccaggccacca

1-2tRNA-Arg(tct)[59220,59294]

gtctttatggtgtaatggatagcacaggagcttctaaactcttagtcaa
ggttcgattccttgtaaacacacca

1-3tRNA-Ser(gct)[59624,59709]

ggtagattggtgaaatggtagccacgacagtttgctaaactgtagtcgga
aacggcgtgtaggttcgagtcctacatctaccgcca

1-4tRNA-Tyr(gta)[59837,59920]

gtgagattggcagagtggtcgattcgggggactgtaaatcccttctgaa
aggcgcgggtggttcgaatccatcatctcacacca

1-5tRNA-Asn(gtt)[59927,60012]

gatgagttggctgaatgggttaagcggcggaactgttaatccgtgttcgaa
agaacgatataggttcaaatctatactcatcgcca

1-6tRNA-Thr(tgt)[60103,60177]

gctcctatagtataatggctattacaacggttttgtaatccgtggatctc
tgttcgattcagagtgaggacacca

1-7tRNA-Gly(tcc)[60494,60567]

gcgttcttggtgtagcggtagcattccgtcctccaagtcggcggcacga
gttcgatcctcgtagaacgtcca

1-8tRNA-Gln(ttg)[60666,60741]

tggttttagtgtagtcggtagcacacgacatttgactgtcgtagggt

tggttcaatccagacagaccagcca
1-9tRNA-Pro(tgg)[60835,60911]
cggaaattagctcagtttgtagagtgtacgcttgggagcgattgtcg
caggttcgaatcctgcaattccgacca
1-10tRNA-Ile(gat)[60918,60991]
tgtttcgtagttcaatggtagaaccacgactgataatcgtgagatacaa
gttcgattcttgtcgaaacaacca
1-11tRNA-Met(cat)[61070,61148]
agcgggatagaggagtctggctcctcgccagttcatatgctggagat
cattggttcaatccaattcccgcctcca

>HQ634177.1 Synechococcus phage S-CAM1 genomic sequence

1-1tRNA-Asn(gtt)c[74005,74080]
ttcctctatagctcaatcaggcagagcgggtgactgtaataataggtt
cctgggtcgattccaggtggaggagt
1-2tRNA-Ala(tgc)c[74130,74203]
ggggaattagctcagctggtagagcgctgttgaagcaggatgtcag
gagttcgagtcctattctccac
1-3tRNA-Leu(tag)c[74805,74886]
gtcgatgtggcggaattggtagacgcgctgggttaggttccagtgatt
tatccgtggagggtcaagtctctcatcgaca
1-4tRNA-Thr(tgt)c[74890,74963]
gcctgttagctcagctggtagagcaacgctttgtaaagcgtaggtcgt
cagttcaagtctgtcaacaggctc
1-5tRNA-Leu(taa)c[75783,75866]
ggggcagtggtggaatcggtagacacaccagacttaaaatctgtgacct
taaggctgtgcgagttcaattctcgttgccta
1-6tRNA-Gly(tcc)c[106145,106215]
gcgggattagtttagaggcaaaactaaagttccaacctttcgtcacca
gttcgattctggtatcccgt
1-7tRNA-Val(tac)c[108518,108589]
gggcgattagcgcagcggtagcgcacctcctttacacggagagggtcggg
ggttcgattccctcatcgcca
1-8tRNA-Arg(tct)c[108590,108665]
gggcacgtagcataatggataatgcatcactcttctaaagtcccattgc
tggttcgagtcagccgtgcctgcc

>HQ317292.1 Synechococcus phage S-RIM2 R1_1999, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca

agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
cgggtcagatccgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttctcagtagctcagcggcagagccatcgactgttaatcgattggctgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161238,161312]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>JX846613.1 Staphylococcus phage vB_SauM_Romulus, complete genome

1-1tRNA-Ser(gct)c[126593,126680]
ggagattactcaagtggcttaagaggttgggttgctaactcaatagggt
atttattcactcataggttcaaatcctatatgtctccg

>JN377895.1 Aeromonas phage Aes012, complete genome

1-1tRNA-Arg(tct)c[62227,62303]
ggctcttagctcagtcggatagagtggcggccttctaagccgagggtca
ttggtcgaatccaatagggactgcca
1-2tRNA-Met(cat)c[62872,62947]
ggccctctgcacagtctgtaatgtgtccagctcataactgggtaagcc
gggttagattcccggaggggccacca
1-3tRNA-Met(cat)c[63150,63226]
tgcaccgtagaggagaggccgtcctcgccagctcataagctggagatcg
tgagttcgaatctcaccggagcatcca
1-4tRNA-Asp(gtc)c[63239,63312]
ggagccatagtttatttggttaaatagtcccctgtcacgggacagcacc
gagttcgatcctcgggtggctccgc
1-5tRNA-Trp(cca)c[63386,63460]
aggggtgtagtgtaatggtagcacgccgcctccaaagccgtgtagtctg
gattcgaattctagcatccctgcca
1-6tRNA-Thr(tgt)c[63821,63896]
gccggttagctcatttggtagagcacttcacttgaatgatgggtggt
ccgttcgaatcggacaaccggcacca
1-7tRNA-Pro(tgg)c[64154,64228]
ctcagcgtaggcaagtgggtatgtcgttccgttgggacggaattttcggg
tgttcgattcaccgctgagacca
1-8tRNA-Gly(tcc)c[64943,65018]
gcgggtaagggtttatggatacacgctagcctccaagcttgagtagac
cgggtcgataccggctaccgctcca
1-9tRNA-His(gtg)c[65030,65105]
gtgacggtagctcaattggtagagccccggattgtgattccggccgttgc
gagatcatccctcgtccgtcacccca
1-10tRNA-Lys(ttt)c[65397,65472]
gcgtcggtagctaagcggtaaagcacctgacttttaacaggatactcga

tggttcgaatccatcccggcgcacca
1-11tRNA-Asn(gtt)c[65640,65716]
ggttgattagctcagttggttagagcggcggactgttaacccgcgggtct
cccggttcgagtcggaatcaaccgcca
1-12tRNA-Arg(cct)c[65796,65878]
ggtgctgtgagccaagcggcttaaggcggctcctaatgcaggacatacga
agcgatcgtaggttcgaatcctaccagcacc
1-13tRNA-Ser(tga)c[65885,65976]
ggagacttgggtgagaggctaaaccaccagcttgaaaactggcgatcg
taggaatacggatccatccgtcaaacggatagctcgcga
1-14tRNA-Leu(taa)c[66168,66252]
gcaagtatggtggaattggtatactggaggctaaaacctcccgcctt
cgggatttgggttcgagtcctactactgcacca

>KC748970.1 Mycobacterium phage ArcherS7, complete genome

1-1tRNA-Ser(gct)[30783,30866]
ggagggtgagcatcagtgatgcagcgagattgctaaccgtacggtaa
ccacccggtgaggttcgaatcctcctccctccgc
1-2tRNA-Leu(cag)[31059,31134]
gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt
gtgagttcgaatctcaccgggagtac
1-3tRNA-Leu(gag)[31254,31328]
gtctctgtaggcaaatcgaaaagcccatcttgagggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[31329,31402]
gccgtggtaggccatctggcgagccgccgagttcaagtttcggtgttgc
gggttcgaatcccgcacggtag
1-5tRNA-SeC(tca)[67326,67422]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgct
ggccggagaaccgacggaaacatccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[91290,91361]
cggggtgtagtaaaaggcatcatgctggtttgggtaccagtgttccg
gttcgagtcgggtccccgac
1-7tRNA-Trp(cca)[91800,91875]
tggggtgaagccgatctggaaggcagcggtctcaaagccgtctcatagc
gggttcgaatcccgtcacccctgcc
1-8tRNA-Tyr(gta)[91877,91963]
gccgcacatcccaactggtgttgggagcaggctgaaccctgtggcct
tcgggacggtgaggttcgattcctcagtcggtacca
1-9tRNA-Pyl(cta)[93072,93144]
gcaccatttgcctaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[93294,93368]
agcgggtgtagagcagctaggtagctcgccgggtcataaccggaggacg
cgtgttcgaatcacgccaccgccac

1-11tRNA-Cys(gca)[93495,93566]
gcgcctttggcgggaatggctacgtgctcggtgcaacccgagttatccc
gttcgactccggaggcgctc
1-12tRNA-Glu(ctc)[93571,93645]
ggccgttgagtagatggatatctgccaccctctcaagtgagatca
cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[93647,93720]
gtggccgtagttcagccggtagaacgtgggttgtgatccagtcgtcga
gggttcgagtcctccggtcacc
1-14tRNA-Ala(tgc)[93882,93955]
gggcctatagctcatctggtagagcgctgccttgcaagcaggaggcggc
aggttcaagtcctgttaggtccac
1-15tRNA-Phe(gaa)[94145,94217]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[94223,94296]
gtccgttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgalccctgcaatggacac
1-17tRNA-Lys(ctt)[94415,94487]
gccttcgtagctcagtggtagagctgtgcctttaagcgataggtcgtt
ggttcgaatccagccggggcac
1-18tRNA-Glu(ttc)[94492,94568]
ggtcgggtcggctcgtcgttatggccagtcggatttctactccgacatt
cgcgggttcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[94648,94720]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacga
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[94780,94854]
gtcgtgtagctcacctggcagagcgtcggcgtcgtatcccgaagcatc
cgggttcgagtcggacagcagcccc
1-21tRNA-Thr(tgt)[94855,94927]
gcctctgtgtccagcggcacggacatccgccttgtaagcggaggacccc
cgttcgatccgggttagaggctc
1-22tRNA-Thr(ggt)[95335,95407]
gtcgggttagctcagtggtagagcgttcctctggtatgggaaaggcccg
ggttcaatccccgattcagctc
1-23tRNA-Gly(gcc)[96730,96803]
gcgaaggtagctcagctggtagagcgccaccttgccaaggtggaggtcgc
gggatcgtaacccgttcttcgctc
1-24tRNA-Asp(gtc)[96807,96879]
ggccctgtagctcagaggaagagcgccggtctgtcgaatcgaggtcgcg
gtatcgtaatccgtcagggtcgc
1-25tRNA-Met(cat)[96939,97011]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct

ggttcgattccaggtgaggtac
1-26tRNA-Ile(gat)[97017,97091]
gcctgttagcggactggtcgtccgatccaagctgataactggcgtaagc
ggtgttcgattcaccgagcaggtac
1-27tRNA-Arg(acg)[97185,97257]
gcctctatggtccaacggatatgacgccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-28tRNA-Val(gac)[97300,97372]
gtccgtgtagctcagggtagagcgcctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-29tRNA-Arg(cct)[97546,97619]
gcctctgtagctcaacggacagagcaacgcggctctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-31tRNA-Gln(ttg)[98160,98235]
tggggtatggtggcaatctggcagtcgcccggtcttactccggaggt
gcagggttcgagtcctgctacccatc
1-32tRNA-Arg(tct)[98239,98314]
gccctttagctcagtgacagagcggcgagcttctacctcgccggccgg
gagttcgaatcctccaggggcacca
1-33tRNA-Gln(ctg)[126933,127007]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[127014,127089]
tggggtgtccgttaatcaggcaaacgagcggactgttaatccgccctgc
aggttcgaatcctgccacccagcca

>KC801932.2 Escherichia phage Lw1, complete genome

1-1tRNA-Met(cat)[49530,49607]
ggccccttagctcaattggttagagcgaaccctcataagggtgtggtt
ccggttcaagtcacggaaggggcacca

>HQ634178.1 Synechococcus phage S-CAM8 strain S-CAM8 06008BI06, complete genome

1-1tRNA-Val(tac)[14508,14579]
gcccgaatagctcagcggtagagcagcacctttacacggtgaatgtcggg
ggttcgatcccctcttgggca
1-2tRNA-Leu(taa)[18531,18617]
tgggagtggtgcggaatcggtagacgcaccagacttaaaatctgttgacc
aataaggtcgtgggagttcaagtctcctactcctat
1-3tRNA-Thr(tgt)[18671,18743]
gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18748,18819]
tcctccttagctcagcggtagagcgggtgactgttaataattgtcct
ggttcgatcccaggagggggag
1-5tRNA-Arg(tct)[155048,155123]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc

acaggttcgagtcctgtctgacccgt

>AP013029.1 Bacillus phage phiNIT1 DNA, complete genome

1-tRNA-Ser(gct)[33425,33513]

tggaataggtacccaagcggtaaaggggtctgggtgctaaccagatagtag

gctgaggtctagcggaggttcgaatcctctcctatccgt

1-2tRNA-Asn(gtt)[33749,33822]

ttgtcccatagctcaatggtagagcggccgactgttaatcggaaggttgc

tggttcgagccagctgggacagt

1-4tRNA-Asp(gtc)[35511,35584]

tggtccatagtcagcgggtaaacacggccgctgtcacgtgggtagcac

gggttcgaatcccgttgagaccgt

1-5tRNA-Tyr(gta)[35750,35833]

gggtgagcggtaacgttgagagttacggcagactgtaaatctgttcct

tcggggtagagtggtcgaatcactccttgcca

>HQ634175.1 Cyanophage P-RSM1 genomic sequence

1-tRNA-Leu(taa)c[39357,39440]

gggagtggtgggaatcggtagacgcaccagacttaaaatctgttgacct

tgagtcgtgggggttcaagtcacccactcctac

1-2tRNA-Arg(tct)c[71616,71690]

tggtcagtagcacagcggatagtgcaactgccttctaagcagtcggtcg

caggttcaaatcctgcctgacccgt

>KC691257.1 Mycobacterium phage Astraea, complete genome

1-tRNA-Ser(gct)[30739,30822]

ggagggtagcatctggtgatgcaggggtcctgctaaggccctacggatt

cacaccgtgagtttcgattactcctccctccgc

1-2tRNA-Leu(cag)[30919,30995]

gccctgctgagcaaatggcaaaagctgccgcattcagagtgcgggtcatt

tccgggttcgactcccgggcagggtag

1-3tRNA-Leu(gag)[31115,31189]

gtctctgtaggcaaatcgaaaagccgcatcttgaggggtggtgcgtg

cgggttcgactcccgcagagacac

1-4tRNA-Leu(caa)[31190,31263]

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gggttcgaatcccggccacgtac

1-5tRNA-SeC(tca)[66777,66873]

attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt

ggccgggagaaccgaccggaacatcccgttcaacgcgacccagggcc

1-6tRNA-Pro(tgg)[90158,90232]

cggggtagttcagtttgaagagcgttggttgggaccaagtgtcg

caggttcgaatcctgtcaccccgac

1-7tRNA-Trp(cca)[90247,90317]

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cgattccctccaggcctgcca

1-8tRNA-Pyl(cta)[91509,91581]

gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-9tRNA-Met(cat)[91731,91805]
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cgtgttcgaatcacgccaccgccac
1-10tRNA-Cys(gca)[91932,92003]
gcgcctttggcggaatggctacgtgctcggtgcaacccgagttatccc
gttcgactccgggaggcgctc
1-11tRNA-Glu(ctc)[92071,92142]
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gttcgatcctcgtgggagtg
1-12tRNA-His(gtg)[92197,92270]
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1-13tRNA-Ala(tgc)[92941,93015]
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tcggttcgaatccgacctggtccac
1-14tRNA-Phe(gaa)[93205,93277]
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ggttcgattcctcgtgtcggcac
1-15tRNA-Val(cac)[93283,93356]
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aggttcgatccctgcaatggacac
1-16tRNA-Lys(ctt)[93475,93547]
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1-17tRNA-Glu(ttc)[93552,93628]
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1-18tRNA-Gly(tcc)[93708,93780]
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ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[93841,93915]
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cgggttcgagtcggacagcagcccc
1-20tRNA-Thr(tgt)[93916,93988]
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1-21tRNA-Thr(ggt)[94396,94468]
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1-22tRNA-Gly(gcc)[95791,95864]
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gggatcgtaacccgttcttcgctc

1-23tRNA-Asp(gtc)[95868,95940]
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 gtatcgtaatccgtcagggtcgc
 1-24tRNA-Met(cat)[96000,96072]
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 gggtcgattccagggtgaggtac
 1-25tRNA-Ile(gat)[96078,96152]
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 ggtgttcgattcaccgagcaggtac
 1-26tRNA-Arg(acg)[96246,96318]
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 tgttcgattcgcgctaggggcac
 1-27tRNA-Val(gac)[96361,96433]
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 gggtcgaaacctcgcatggacac
 1-28tRNA-Arg(cct)[96608,96681]
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 1-30tRNA-Gln(ttg)[97222,97297]
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 gcaggttcgagtcctgctaccccatc
 1-31tRNA-Arg(tct)[97301,97376]
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 gagggtcgaatcctcaggggcacca
 1-32tRNA-Gln(ctg)[124792,124866]
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 gggtcgaatcctaagcgagcagcca
 1-33tRNA-Asn(gtt)[124873,124948]
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 >HQ317383.1 Synechococcus phage S-IOM18 genomic sequence
 1-1tRNA-Val(tac)[4930,5003]
 tgggcgaatagctcagcggtagagctactcgttacaccgagtcggtcgg
 gggttcgatcccctcttcgccat
 1-2tRNA-Leu(taa)[9367,9452]
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 aatagcccgtgagagttcaagtcctccgttcctat
 1-3tRNA-Thr(tgt)[9697,9770]
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 agttcaaatctgtcaggggtcc
 1-4tRNA-Ala(tgc)[9772,9847]
 tggggaattagctcagttggttagagcgctgttgcaagcaggatgtca
 gcggttcgagtcgctatttcctac
 1-5tRNA-Asn(gtt)[9897,9968]

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ggttcaaactcctgccttgggag
1-6tRNA-Arg(tct)[147052,147126]
tgggtcagtagctcagcggatagagcaactgccttctaagcagttggtcg
caggttcaaactcctgcctgactcgt
1-7tRNA-Pro(tgg)[148131,148204]
cggggtgtagcttagcttggtagagcggccttgggagcgggaggtcg
caggttcaaactcctgccaccccgga

>JX126918.2 Listeria phage LP-125, complete genome

1-1tRNA-Met(cat)c[35284,35357]
ttgtcccgtagctagaaggtcgagcaaggagctcataactcctcggtttg
ggttcgattcccaacggggcaatc
1-2tRNA-Pro(tgg)c[36250,36324]
caggggtgtagctcagtttggtagagtacccgcttggagacgggaagtc
gtaggttcgagtcctaccaccttga
1-3tRNA-Arg(tct)c[37442,37512]
gtccttatggtgtagtggatgcacaagggttctactcccttagcgcgg
gttcgaatcctgctgaggact
1-4tRNA-Gly(tcc)c[37770,37840]
gcggttagtagtataagggtagtagtaccgaaggttccaacctgtagtgggg
gttcgaatccccctaccgct
1-5tRNA-Asn(gtt)c[37909,37982]
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tgggtcaaactccagcaggatacgc
1-6tRNA-Ser(tga)c[38604,38695]
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ggttcgatacctgcggactcca
1-8tRNA-Lys(ttt)c[38785,38856]
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ggttcgaatcctagtggtcca
1-9tRNA-Trp(cca)c[38981,39054]
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gggttcaagtcctactatccctgt
1-10tRNA-Gln(ttg)c[39056,39128]
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ggttcgaatccaactagaccagc
1-11tRNA-Thr(tgt)c[39147,39218]
gcttgtagtcaattggtagaacagtggttttgaagcctcagacgtg
ggttcaagtcctactacaagca
1-12tRNA-Tyr(gta)c[39301,39382]
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ggggttccaaggttcgagtccttgatggcgca
1-13tRNA-Leu(tag)c[39743,39827]
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1-14tRNA-Asp(gtc)c[40293,40365]
gtgcgtatgatataatggctattatactcggctgtctatcgagaaatagg
ggttcgattccccttacgtgcgc
1-15tRNA-Ile(gat)c[40469,40541]
gccagcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
ggttcaattccaagtgttggtac
1-16tRNA-Ser(gct)c[40718,40804]
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agtaatagtaccaagggttcgaatcccttactctcct
1-17tRNA-Cys(gca)c[40883,40953]
gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
gttcaattcccattaccgct

>KC748968.1 Mycobacterium phage Gizmo, complete genome

1-1tRNA-Ser(gct)[31235,31318]
ggagggtgagcatctggtgatgcaggggtcctgctaaggccctacggatt
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1-2tRNA-Leu(cag)[31415,31491]
gccctgctgagcaactggcaaagctgccgattcagagtcggggtcatt
tccgggttcgactcccgggcagggtac
1-3tRNA-Leu(gag)[31611,31685]
gtctctgtaggcaaatcgaaaagccgcatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[31686,31759]
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gggttcgaatcccggccacggtac
1-5tRNA-SeC(tca)[70109,70205]
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ggccggagaaccgaccggaacatcccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[93378,93452]
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caggttcgaatcctgtcaccccgac
1-7tRNA-Trp(cca)[93467,93537]
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cgattccctcaggcctgcca
1-8tRNA-Pyl(cta)[94734,94806]
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gttcgactccggcatggtgcacc
1-9tRNA-Met(cat)[94956,95030]
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cgtgttcgaatcacgccaccgccac

1-10tRNA-Cys(gca)[95157,95228]
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gttcgactccgggaggcgctc
1-11tRNA-Glu(ctc)[95233,95307]
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cgggttcaagtcccgtacggactgc
1-12tRNA-His(gtg)[95309,95382]
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gggttcgagtcctccggtcacc
1-13tRNA-Ala(tgc)[95544,95618]
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1-14tRNA-Phe(gaa)[95808,95880]
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ggttcgattcctcgtgtcggcac
1-15tRNA-Val(cac)[95886,95959]
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1-16tRNA-Lys(ctt)[96078,96150]
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1-17tRNA-Glu(ttc)[96155,96231]
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1-18tRNA-Gly(tcc)[96311,96383]
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ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[96443,96517]
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1-20tRNA-Thr(tgt)[96518,96590]
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cgttcgatccgggtagaggctc
1-21tRNA-Thr(ggt)[96650,96722]
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1-22tRNA-Gly(gcc)[98467,98542]
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gcgggttcaaattcccgtacccgctc
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1-24tRNA-Met(cat)[98688,98760]
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ggttcgattccagggtgaggtac
 1-25tRNA-Ile(gat)[98766,98840]
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 ggtgttcgattcaccgagcaggtac
 1-26tRNA-Arg(acg)[98933,99005]
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 1-27tRNA-Val(gac)[99048,99120]
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 1-28tRNA-Arg(cct)[99294,99367]
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 1-31tRNA-Arg(tct)[99987,100060]
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 gatttcgaatcctccaggggcac
 1-32tRNA-Lys(ttt)[100128,100204]
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 gtgggttcgaatcccacccggcccacc
 1-33tRNA-Gln(ctg)[128217,128291]
 tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
 ggttcgaatcctaagcgagcagcca
 1-34tRNA-Asn(gtt)[128298,128373]
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 aggttcgaatcctgccaccccagcca

>HQ317393.2 Vibrio phage nt-1, complete genome

1-1tRNA-Ser(gct)c[89870,89958]
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 aatagcgttctctgggttcgactcccagtatctcccca
 1-2tRNA-Leu(caa)c[90888,90964]
 gcccaactagtccaattggcagaggcgctagttcaaactagatgatc
 cgagttcgaatctcgggttgggcacca
 1-3tRNA-Leu(taa)c[90971,91047]
 gcgcatgtgtccaattggcagagcatgaggtttaaattctcagggatg
 cggttcgaatccgcccacgtacca
 1-4tRNA-Cys(gca)c[91492,91565]
 gcccgaaatcgataatggaagtatgaggattgcaaatcccgcggtcaga
 gttcgattctctgttcgggtcca
 1-5tRNA-His(gtg)c[91966,92040]
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 ggttcgattcccgtcggtcaccca

1-6tRNA-Val(tac)c[92720,92793]
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gctcgaatccgacaggggctacca
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ggttcgagtcggtgtacccgctcca
1-8tRNA-Met(cat)c[93321,93396]
ggagatgtagctcaagtggtagagcggcgctttcatacggcgtagatcc
gatttcgagtatcgggtgtctccacca
1-9tRNA-Arg(tct)c[94086,94161]
gtcctcatagctcaattggaagacacgtcccttctaaggatgtggttct
aggttcgaatcctagtggggatgccca
1-10tRNA-Ala(tgc)c[94236,94311]
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gagttcgagtcctcgtcattccacca
1-11tRNA-Thr(tgt)c[95030,95105]
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cggttcaaatccgtgcagggcacca
1-12tRNA-Gln(ttg)c[95232,95305]
tgggataggtgtaattggtagcactacggattttgattccgtcagttaga
gttcgaatctctatatacccagcca
1-13tRNA-Asp(gtc)c[95602,95677]
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gggttcgagccccgtcggttccgcca
1-14tRNA-Asn(gtt)c[95897,95972]
gcttcattaactcagtcggtagagtacggactgttaatccgtgagtcgt
tggttcgagcccaacatgaagcgcca
1-15tRNA-Asn(gtt)c[95978,96052]
gacggagtagctcagaggcagagcagcgggctgtaacccgcaggtcgag
atttcgaaattctccttcgtcgcca
1-16tRNA-Trp(cca)c[96129,96202]
agggacatgatgtaacggcagcatgacggattccaaacccgttcgtaga
gttcgaatctctatgtccctgccca
1-17tRNA-Ile(gat)c[96209,96282]
agctccatagtttaacggtaaaacacgcgaccgataatcgacgttgaca
gttcgagtcgtctggggctacca
1-18tRNA-Ser(tga)c[96345,96430]
gaaagattcgggtagcggcaacggcttgaaaaccgtcggggcatggga
atgcctgttagggtcgaatccctagttctccgcca
1-19tRNA-Met(cat)c[96455,96526]
tgcggagtagagcagtggtcagctcaccagtctcataagctggaggtcgt
tggttcgaatccaacctcacgc
1-20tRNA-Tyr(gta)c[96629,96715]
ggttcgtagactaatgtaagtacggggattgtaaatccctcgccctta

atcgggcttctaggttcgagtcctagcggaccacca
 1-21tRNA-Glu(ttc)[96722,96796]
 tcaccgtagactaatggtaggtcactcccttcaaggaagtatgcgcg
 agttcgaatctcgtcgggtgaacca
 1-22tRNA-Lys(ttt)[96861,96934]
 gggctctatgatgaatggtagcatatgggacttttaatccttcagtcaga
 gttcgaatctctgtgaccacca
 1-23tRNA-Phe(gaa)[97023,97098]
 gcacccttagctcagttggtagagcggcggattgaagcccgcaggtcac
 ggtctcgatagccgtagggtgcacca
 1-24tRNA-Leu(tag)[97151,97228]
 gcgcatgtagcccaatctggcagaggcactggtcttagaaaccagaagt
 aagagttcgaatctcttcacgtacca
 1-25tRNA-Arg(acg)[97435,97510]
 gcccattagctcaattggaagagcagcgcctacgaaggcgaaggttac
 aagttcgaatctgtattgggtgcca
 1-26tRNA-Pro(tgg)[97518,97594]
 ccgtgactagctcaatctggtagagtactccgttggggcggagaagtta
 agcgttcgaatcgcttgcacgacca
 1-27tRNA-Pro(tgg)[97604,97679]
 cgggtgtggtgttaatgggagcatggtcgcttgggagcagcggaaa
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 1-28tRNA-Met(cat)[100873,100950]
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 >JF974314.1 Rhizobium phage RR1-A genomic sequence
 1-1tRNA-Met(cat)[35772,35847]
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 >JX846612.1 Staphylococcus phage vB_SauM_Remus, complete genome
 1-1tRNA-Ser(gct)[129904,129991]
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 >KF669649.1 Bacillus phage CampHawk, complete genome
 1-1tRNA-Asn(gtt)[29027,29101]
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 1-2tRNA-Ser(gct)[29189,29278]
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 1-3tRNA-Arg(cct)[33500,33574]
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 >KF669654.1 Salmonella phage Maynard, complete genome

1-tRNA-Ser(gct)c[19769,19857]

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1-tRNA-Ile(gat)c[19862,19945]

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1-tRNA-Asn(gtt)c[20307,20381]

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1-tRNA-Trp(cca)c[20390,20465]

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1-tRNA-Met(cat)c[20534,20610]

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>AB853331.1 Staphylococcus phage S25-4 DNA, complete genome

1-tRNA-Trp(cca)c[40531,40602]

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1-tRNA-Phe(gaa)c[40609,40681]

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1-tRNA-Asp(gtc)c[40687,40762]

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>KF147891.1 Pseudomonas phage PaBG, complete genome

1-tRNA-Thr(tgt)[120228,120303]

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1-tRNA-Ala(tgc)[122295,122388]

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1-tRNA-Lys(ttt)[122606,122681]

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1-tRNA-Asp(gtc)[122690,122765]

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1-tRNA-Lys(ttt)[122767,122843]

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>AB797215.1 Klebsiella phage 0507-KN2-1 DNA, complete genome

1-tRNA-Gln(ttg)c[83731,83804]

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 1-3tRNA-Trp(cca)c[84477,84552]
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 1-4tRNA-Met(cat)c[85017,85092]
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 1-5tRNA-Thr(ggt)c[140280,140370]
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 >KF669653.1 Salmonella phage Marshall, complete genome
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 >KF669652.1 Bacillus phage Grass, complete genome
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 1-5tRNA-Tyr(gta)[33274,33357]
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 >AB853330.1 Staphylococcus phage S25-3 DNA, complete genome
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 1-3tRNA-Phe(gaa)c[35742,35814]
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 >KC862299.1 Pseudomonas phage PAK_P3, complete genome
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 1-3tRNA-Gln(ttg)[86505,86581]
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 >KC862298.1 Pseudomonas phage PAK_P2, complete genome
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 1-7tRNA-Cys(gca)[91435,91510]

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1-8tRNA-Asn(gtt)[91521,91596]
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1-9tRNA-Pro(tgg)[91659,91736]
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1-10tRNA-Gly(tcc)[91744,91820]
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1-11tRNA-Phe(gaa)[91883,91958]
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1-12tRNA-Glu(ttc)[91965,92040]
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gggttcgatccccggttaactgtcca
1-13tRNA-His(gtg)[92101,92175]
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1-14tRNA-Thr(tgt)[92362,92436]
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>KC690136.1 Escherichia phage 2 JES-2013, complete genome

1-1tRNA-Pro(tgg)c[61326,61402]
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1-3tRNA-Thr(tgt)c[61490,61565]
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aggttcaagtcctgccatcagcacca
1-4tRNA-Arg(tct)c[61788,61862]
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>KC862300.1 Pseudomonas phage PAK_P4, complete genome

1-1tRNA-Gln(ttg)[90172,90245]
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1-2tRNA-Arg(tct)[90451,90525]
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1-3tRNA-Leu(tag)[91273,91357]

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>HQ163896.1 Staphylococcus phage Sb-1, complete genome

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 >KC131129.1 Vibrio phage VH7D, complete genome
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 >KF806589.1 Erwinia phage Ea35-70, complete genome
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 1-3tRNA-Leu(tag)c[60428,60504]
 gggcgattgatggaattggtatacgtgtcggatttagattccgaattttg
 ggggttcgagtcacctgtcgcccacca
 1-4tRNA-Ala(tgc)c[60614,60689]
 ggggctgtagtttattggataaaatcacaggcttgacacctgtagaact
 gatttcgattctcagtggtcccacca
 1-5tRNA-Arg(acg)c[60694,60769]
 gcaggtatagttcaactggacagagcatcagttacgaagctgagaatcg
 gggttcgaatccctgtactgcacca
 1-6tRNA-Pro(tgg)c[60776,60853]
 cggagcgtagcgcagctctggtcagcgtgggtgccttggatgcactgggtc
 gcaggttcgaatccctgccgtcccacca
 1-7tRNA-His(gtg)c[61038,61111]
 ggggaatttagttaaggggcataatggccgcttgtgctcggttgtctcct
 gttcgagtcaggaagttcccacca
 1-8tRNA-Asp(gtc)c[61116,61191]
 ggagatatagtttaaacggataaaatacacccctgtcacgggatgttcc
 gggttcgatgcccggtatctccacca
 1-9tRNA-Asn(gtt)c[61197,61285]
 ggttctttgaccgagaggccgatggtagcaggctgttaacctgcctggag
 caatccacaacgaaggttcgaatccttcaggaaccgcca
 1-10tRNA-Ser(tga)c[61548,61636]
 ggagagcaggctgcatggtgcagactccggttgaacccggtcccatcgt
 agcgatacggtagacagttcgattctgtgctctcctcca
 1-11tRNA-Ser(gct)c[61637,61729]
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 1-12tRNA-Ser(gga)c[61890,61982]
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 1-13tRNA-Gln(ttg)c[62097,62172]
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 gggttcgagtccttatcttctcctcca

1-14tRNA-Trp(cca)c[62178,62254]
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 tgggttcgaatcccaggtccctgcca
 1-16tRNA-Glu(ttc)c[62340,62417]
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 acgggttcgaatcccgttgacagtacca
 1-17tRNA-Ile(gat)c[62505,62581]
 gggagtatagctcagatggatagagcgtcgcgccgataagcgagaggtcg
 ctggttcaatcccagctactcccacca
 1-18tRNA-Tyr(gta)c[62588,62675]
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 cgctccttcgtaggttcgagtcctactcgccccacca
 1-19tRNA-Cys(gca)c[63130,63206]
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 tcagttcgagtctgacaccgtgctcca
 1-20tRNA-Arg(tct)c[63208,63282]
 cggggcatagtctagaggataggcaggagtcttctaaactcctttacgtg
 ggttcgaatcctactgcctcgacca
 1-21tRNA-Leu(taa)c[63289,63366]
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 cccagttcgagtctgggagggcgacca
 1-22tRNA-Arg(gcg)c[63670,63743]
 tcgttgatagccttagcggtaaaggccccctctgcgcaaggggttcagtg
 gttcgaatccacttcagcgagcca
 1-23tRNA-Thr(tgt)c[63750,63824]
 gtccttaaagcataagtggcgatgcagcggccttgaagccgaagaagtg
 ggttcgattcctactgggagcacca
 1-24tRNA-Lys(ctt)c[66032,66107]
 ggggtattaactcagcggttagtagcggcctttaagccgaaggtcga
 aggttcgaatccttcagccccacca
 1-25tRNA-Met(cat)c[66802,66878]
 ggttctgtagcttagttggttagagcgttccctcataaggaagaggtcg
 caggttcaatccctgccagaactacca

>KC862301.1 Pseudomonas phage PAK_P5, complete genome

1-1tRNA-Asn(gtt)[86121,86197]
 tccgttcggtccctcaaggtgaggagcttactgttaatcaagacgtgc
 ctggttcgattccaggagcggagcca
 1-2tRNA-Tyr(gta)[86255,86342]
 ggaggggtggcagagcggtttaatgcaccggactgtaaatccggcgtccg
 accgggcatcgctggttcaaatccagccccctccacca
 1-3tRNA-Gln(ttg)[86544,86620]
 aggcgtgtggcgaaggtttaacgcactggactttgactccagcatttg
 tgggttcgaatcccaccacgtctgcca

>AB775548.1 Pseudomonas phage PPpW-3 DNA, complete sequence

1-tRNA-Arg(tct)[21063,21139]
ggccccgtagctcagctggatagagcattcgcccttaagcgaacgggtca
caggttcgaatcctgtcggggtcgcca

>KC862295.1 Pseudomonas phage CHA_P1, complete genome

1-tRNA-Asn(gtt)[86241,86317]
tccgttcgggtccctcaaggtgaggagcttgactgttaatcaagacgtgc
ctggttcgattccaggagcggagcca
1-2tRNA-Tyr(gta)[86375,86462]
ggaggggtggcagagcgggttaatgcaccggactgtaaatccggcgtcgg
accgggcatcgctggttcaaatccagcccctccacca
1-3tRNA-Gln(ttg)[86664,86740]
aggcgtgtggcgaaggttaacgcactggactttgactccagcatttg
tgggttcgaatcccaccacgtctgcca

>KJ409772.1 Pseudomonas phage phiPsa374, complete genome

1-tRNA-Lys(ttt)[24977,25053]
tggacgttggccgaccggcgcgaggcaacaggcttttaacctgtattaac
tgagttcgattctcaggcgttcaacca
1-2tRNA-Ser(aga)[25261,25350]
ggcgggtagtgatcatggcgatcaagctgttagaaagcagtaccattgg
ctagtaccgggtgagagttcgattcccttaccgcctcca
1-3tRNA-Leu(caa)[25357,25433]
cggcagttgaagcaactggtaatcttcgtcagctcaaacctgatgtattc
tgagttcgaatctcagactgccgacca
1-4tRNA-Val(tac)[25440,25513]
gcttcttagtttaattggtagaacgccatccttacacgggtggctgcggtg
gttcgattccatcaagaagcacca
1-5tRNA-Gln(ttg)[25660,25736]
tggggattagaatagatggcctaattcatcggtctttgacaccgacagca
ctggttcgaatccagtatcccctgcca
1-6tRNA-Trp(cca)[26408,26484]
agggggtgaagtgaatggctatgcacgcgggattccaaatccttgacagac
tgggttcgattcctagcacgcctgcca
1-7tRNA-Arg(tct)[26578,26654]
ggccttatagtgaagggaattagcacatcatccttctaagttgatagat
aaggttcgaatccttatagggtacca
1-tRNA-Glu(ttc)[26874,26950]
gctcttgcgtctaaaggtataggatggctgactttcaatcagttgatgt
tgggttcgagtcaccaagagtacca
1-9tRNA-Asp(gtc)[26955,27030]
ggcttatgttctctgggaaggaaggcacactgtctatgtgtcagttga
gggttcgaatcccttataggtcgcca
1-10tRNA-Thr(tgt)[27091,27165]
gcccttgcataaaaggctattatgcctgtttgtaatcaggttattgc
ggttcgaatccgtactggggcacca

1-11tRNA-Ile(gat)[27172,27246]
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 agttcgattcttctctggcaacca
 1-12tRNA-Arg(acg)[27253,27330]
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 gcaggttcgaatcctgtcagctatgccca
 1-13tRNA-Asn(gtt)[27486,27562]
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 ttggttcgattccaagattaccagcca
 1-14tRNA-Asn(gtt)[27569,27655]
 ttccgtgtgtagggaactggtagaccacctgactgtaatcaggcgt
 aacgcaacttaggttcgaagcctaccaccggagcca
 1-15tRNA-Pro(tgg)[27774,27847]
 ctctcggaagcgttacggtagcgtactttgttggaaacgaagtggtg
 gttcgactccaccccgagtacca
 1-16tRNA-Ala(tgc)[27991,28064]
 gggctgtaagaattatgatatgtcgtacgttgaccgtagaagccggg
 gttgactccccgacggtccacca
 1-17tRNA-Leu(tag)[28324,28400]
 gctcctgtaggccaactggtagagtcagtcgcttagaacgcataaagtc
 tcggttcgaatccgagtggtgagtagcca
 1-18tRNA-Cys(gca)[28458,28532]
 gtgtcttgcgagcggctgaggtagcggattgcaaacccgttaggtt
 gttcaactccaacaagatactcca
 1-19tRNA-Gly(tcc)[28539,28614]
 gcgtgattcgtagaggtctaatactctcggctccaccgaggaacca
 cgggtcgactccgtgatcccgacca
 1-20tRNA-Phe(gaa)[28620,28695]
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 tgggtcgactccaagagattgcacca
 >KJ101592.1 Enterobacter phage PG7, complete genome
 1-1tRNA-Thr(tgt)c[72104,72179]
 gccggttagctcagttggtagagcagctcatttgaatgagagggtcag
 cgggtcgaatccgttaaccggcacca
 1-2tRNA-Leu(taa)c[72181,72265]
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 aaggattgagggtcgaatccctcttgatgcacca
 1-3tRNA-Cys(gca)c[72272,72356]
 gctagggtgctgagtggtgcaaaaggcagcggttgcaaatccgccgggta
 tcccttcgtgagttcgaatctcactcctagctcca
 1-4tRNA-Arg(tct)c[72361,72438]
 cgggtatagctcagctggatagagcagtggttctaataccacaggtcg
 acgggttcgaatccctctacctcgacca
 1-5tRNA-Met(cat)c[74609,74685]

ggccctatagctcaattggttagagcacgcgactcataatcgctaggtg
caggttcgagtcctgctgggtcacca
1-6tRNA-Phe(gaa)c[75607,75681]
gggaagttagctgagatggattagcgcgtgcctgaagagcatgagaggtt
ggttcgattccaacactcccacca
1-7tRNA-Pro(tgg)c[75683,75759]
ctccgtgtagctcagtttggtagacatccggttgggaccggagggtcc
gaggttcaaatcctcgcatggagacca
1-8tRNA-Gly(tcc)c[75766,75840]
gcatccatcgatatcggtattatgactggctccacccagtagatgag
agttcgattctctctggatgctcca
1-9tRNA-Met(cat)c[75846,75940]
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acgtcaatcgcaatttaacctgggtcgaatccaggcgttcctgac
1-10tRNA-Trp(cca)c[75991,76064]
aggtctctcgtatagtggtattatcctgagctccaacctcagtgacgtgg
gttcgattcctacggggcctgcca
1-11tRNA-Ser(tga)c[76069,76160]
ggaagcgtggttagagcggcttattacaccggtcttgaaaaccggaggccg
tagtgatacgggtccgtgggttcgaatcccaccgcttctcca
1-12tRNA-His(gtg)c[76165,76240]
gtggccgtagttcagttggtagaactcgagattgtgattctcgtagccat
gggttcaactcccatcggtcacccca
1-13tRNA-Gln(ttg)c[76455,76530]
tggggtatagccaagttggtaaggcagtagattttgattctacgattccc
tggttcgagtcagggtacccagcca
1-14tRNA-Met(cat)c[76537,76613]
tcggggttaacttcagttggtagaatgacgggttcatacccgttacg
atggttcgagtcacatcccccctcca
1-15tRNA-Asp(gtc)c[76771,76846]
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gggttcgaatcccgttaggtccgcca
1-16tRNA-Asn(gtt)c[77091,77175]
gggtcgttggctgagagggtgaagctgcgactgttaatccgtgcagaaa
tgactaggcaggttcgatacctgcacgacccgcca
1-17tRNA-Glu(ttc)c[77181,77255]
tctccgttcgtctatcggtaggacgccgctttcacgtcggaaagaag
agttcaattctcttacggagaacca
1-18tRNA-Lys(ttt)c[77257,77334]
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atgggttcaactccctcagtcctacca
1-19tRNA-Ile(gat)c[77373,77448]
gggaatatagctcagttggttagagcaaacgaccgataatcgtaggccac
tggttcgagtcagttattcccacca

>AB903967.1 Staphylococcus phage phiSA012 DNA, complete genome

1-1tRNA-Met(cat)c[8109,8180]
ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
ggttcgagtcctgcagagtcca
1-2tRNA-Phe(gaa)c[30344,30416]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-3tRNA-Asp(gtc)c[30422,30497]
tggctcattgggtgaactggtaacacactgccctgtcacggcagagagt
acgagttcgagtcctgtatgggtcgt

>KF156340.1 Synechococcus phage S-MbCM100, complete genome

1-1tRNA-Val(tac)[13860,13931]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18850,18936]
tgggagtgtagcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggttcaagtccttctcccat
1-3tRNA-Thr(tgt)[19560,19632]
gcctccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[19637,19709]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tgggtcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154513,154588]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgacctgt

>JN624850.1 Mycobacterium phage Pleione, complete genome

1-1tRNA-Ser(gct)[31551,31634]
ggagggtgagcatctggtgatgcaggggtcctgctaaggccctacggatt
cacaccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[31731,31807]
gccctgctgagcaactggcaaaagctgccgcattcagagtgcgggtcatt
tcggggttcgactccgggcagggtac
1-3tRNA-Leu(gag)[31927,32001]
gtctcttaggcaaatcggaagccgcatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[32002,32075]
gccgtggtaggccatctggcgagccgcgagttcaagtttcggtgtttgc
gggttcgaatcccggccacggtac
1-5tRNA-SeC(tca)[68643,68739]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgaccggaacatcccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[91912,91986]
cggggtgtagttcagtttgaagagcgttggttgggaccaagtgtcg

caggttcgaatcctgtcaccgac
1-7tRNA-Trp(cca)[92001,92071]
gggtctgtgcacaggtgcccaggtctccaaagccgaagcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Pyl(cta)[93268,93340]
gcaccatttgctcaatggcagagcggcggcttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-9tRNA-Met(cat)[93490,93564]
agcgggttagagcagctaggtagctcgccgggctcataaaccggaggacg
cgtgttcgaatcacgccaccgccac
1-10tRNA-Cys(gca)[93691,93762]
gcgccttggcggaatggctacgtgctcggtgcaacccgagttatccc
gttcgactccgggaggcgctc
1-11tRNA-Glu(ctc)[93767,93841]
ggtccgttgagtagatggatatctgccaccctctcaagtgagatca
cgggttcaagtcccgtacggactgc
1-12tRNA-His(gtg)[93843,93916]
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gggttcgagtcctccggtcaccc
1-13tRNA-Ala(tgc)[94078,94152]
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tcggttcgaatccgacctggtccac
1-14tRNA-Phe(gaa)[94342,94414]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgtcggcac
1-15tRNA-Val(cac)[94420,94493]
gtccgttagctcagctggaagagcgtcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-16tRNA-Lys(ctt)[94612,94684]
gccttcgtagctcagtggtagagctgtcgcccttaagcgaataggtcgtt
ggttcgaatccagccggggcac
1-17tRNA-Glu(ttc)[94689,94765]
ggtcgggtcggctcgtcggatggccagtcggattttcactccggacatt
cgcgggttcaattcccgtcccgatcgc
1-18tRNA-Gly(tcc)[94845,94917]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[94977,95051]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaagcatc
cgggtcagatccggacagcagcccc
1-20tRNA-Thr(tgt)[95052,95124]
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cgttcgatccgggtagaggctc
1-21tRNA-Thr(ggt)[95532,95604]

gctgggtagctcagtggttagagcgttcctctggtagggaaaggcccg
 ggttcaatccccgattcagctc
 1-22tRNA-Gly(gcc)[96927,97000]
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 gggatcgtaacccgttcttcgctc
 1-23tRNA-Asp(gtc)[97004,97076]
 ggcctgtagctcagaggaagagcaccgcctgtcgcgggaggtcgcg
 gtatcgtaatccgtcagggtcgc
 1-24tRNA-Met(cat)[97136,97208]
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 ggttcgattccagggtgaggtac
 1-25tRNA-Ile(gat)[97214,97288]
 gcctgttagcggactggctcgtccgatccaagctgataactggcgtaaagc
 ggtgttcgattcaccgagcaggtac
 1-26tRNA-Arg(acg)[97381,97453]
 gcctctatgggtccaacggagatgacgcgggtctacggaaccggagatgcg
 tgttcgattcgcgctaggggcac
 1-27tRNA-Val(gac)[97496,97568]
 gtccgttagctcaggggtagagcgcctgctcgacacgcaggaggaccga
 ggttcgaaacctcgcatggacac
 1-28tRNA-Arg(cct)[97743,97816]
 gcctctgtagctcaacggacagagcaacgcggcttaacgcggtggctgg
 aggttcgaatcctctcggaggcac
 1-30tRNA-Gln(ttg)[98357,98432]
 tggggtatggtggcaatctggcagctcccgcggactttgactccggaggt
 gcaggttcgagtcctgctaccccatc
 1-31tRNA-Arg(tct)[98436,98509]
 gccctttagctcagtggtgacagagcggcgagcttctacctcgcgggccgg
 gagttcgaatcctcaggggcac
 1-32tRNA-Lys(ttt)[98577,98653]
 gggccggtatcttagtctggtcaaagaagtggacttttaacgcgcgcc
 gtgggttcgaatcccacccggcccacc
 1-33tRNA-Gln(ctg)[126654,126728]
 tgctcgttggtgtaactggcaacactacggactctgactccgtcatttta
 ggttcgaatcctaagcgagcagcca
 1-34tRNA-Asn(gtt)[126735,126810]
 tggggtgtccgttaatcaggcaaacgagcggactgttaatccgccctgc
 aggttcgaatcctgccacccagcca

>JN638751.1 Bacillus phage G, complete genome

1-1tRNA-Cys(gca)[58584,58654]
 gcgtttatagccaagtggtaaggcctcggctgcaaaaccgatatcgca
 gttcaaatctcgctaaacgct
 1-2tRNA-Asp(gtc)[58662,58737]
 ggctccgtggttagcggttaacacgcctgcctgtcacgtaggagatcgc

cggttcgaatccggtcggggccgcca
 1-3tRNA-Phe(gaa)[59296,59371]
 ggaggagtagctcagttggtagagcggcagattgaagatctgcgcgtcgg
 gggttcaagtcccttttctccacca
 1-4tRNA-Tyr(gta)[59377,59461]
 ggggagatagaccgtaagtgggaagcgggcaggactgtaaatcctgtgaga
 aatccttgggtgttcgattcgccctctccccacca
 1-5tRNA-Glu(ttc)[59475,59550]
 ggcgcgttagccaagtggtaaggcatccggctttctaccggagattacac
 gattcgaacctcgtacgcgtacca
 1-6tRNA-Thr(tgt)[59556,59630]
 gccggttagctcagcggtagagcgtccccttgaaggagatgtcgtg
 ggttcaaatcctataaccggctcca
 1-7tRNA-Ser(tga)[60123,60212]
 ggagggttactctaattggtaagagaacagtcttgaaaactgtcgtaggt
 ataaaagccgatgggggttcgagtcctcaccctccgcca
 1-8tRNA-Arg(tct)[403940,404015]
 tgcgcctgtagctcagctggatagagcacgagccttctaagcccgggtc
 gtaggttcgaatcctaccaggcgcgt
 1-9tRNA-Ser(gct)[410128,410215]
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 gcaagggtcgcagggttcgaatccctccgactccgcca
 1-10tRNA-Asn(gtt)[410921,410996]
 tcaccagtagctcagcggtagtagcacctgactgttaatcagggggtcgt
 aggttcgaatcctacctggtgagcca
 1-11tRNA-Gln(ttg)[411003,411077]
 tgccggatagccaagtggtaaggcaatggactttgactccatgatacaga
 ggttcgaatcctttccggcagcca
 1-12tRNA-His(gtg)[411235,411309]
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 tgggtcgtatcccatcatccacc
 1-13tRNA-Glu(ttc)[411320,411394]
 ggggtgttggcgaagtataacgcacatccgactttctatcggacattcgcg
 ggtttgaatccgtacaccctcca
 1-14tRNA-Met(cat)[411855,411926]
 gctggcgggaggtagcgtctcggggagttcatgaactctcattaattc
 ggttcgaatccggagcccagca
 1-17tRNA-Gly(tcc)[412560,412632]
 gcgggtgtgtataacggctattttctgcctccaagcagacgatacg
 ggttcgattcccgttactcgtc
 1-18tRNA-Met(cat)[414001,414080]
 ggaccgttcgcccgagatggtcgaaggcaccagctcataactgggaaaa
 tcaccgggggttcgactccctcacgtcca

>JN412588.1 Mycobacterium phage Dandelion, complete genome

1-1tRNA-Ser(gct)[34223,34306]
ggagggtgagcatctggtgatgcaggggtcctgctaaggccctacggatt
cacacccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[34403,34479]
gccctgctgagcaaactggcaaagctgccgcattcagagtgagggtcatt
tccgggttcgactcccgggcagggtac
1-3tRNA-Leu(gag)[34599,34673]
gtctctgtaggcaaatcgaaaagccgcatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[34674,34747]
gccgtggtaggcatctggcgagccgccgagttcaagtttcggtgttgc
gggttcgaatcccgcacggtac
1-5tRNA-SeC(tca)[70671,70767]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgacggaaacatcccgttcaacgcgaccagggcc
1-6tRNA-Pro(tgg)[94760,94831]
cggggtgtagtgaaaaggcatcatgctggtttgggtaccagtggttccg
gttcgagtcggggtccccgac
1-7tRNA-Trp(cca)[95270,95345]
aggggtagagccagctgggacggcagcggattccaaacccgccattgacg
gagttcgattctccgtaccctgccca
1-8tRNA-Tyr(gta)[95347,95432]
ccgggtaagccatgttgggtatggcaggcagactgtaaatctgtcgtctt
cggacttcgggggttcgattccctctaccggacca
1-9tRNA-Pyl(cta)[96492,96565]
tgcgagatcgtgcacggcgactaggagcttctaaccctccgactcgcgg
gttcgactcccgcactcgcaccc
1-10tRNA-Met(cat)[96713,96787]
agcgggtgtagagcagctaggtagctcggggtcataaccggaggacg
cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[96915,96986]
gcgcctttggcggaatggctacgtgctcggctgcaacccgagttatcccg
gttcgactccgggagggcgctc
1-12tRNA-Glu(ctc)[97054,97125]
gtccccatggggtagtggttaaccctcctggttctcagccaggcgtcccga
gttcgatcctcgtgggagtg
1-13tRNA-His(gtg)[97127,97200]
gtggccgtagttcagccgtagaacgctgggttgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[97364,97437]
gggcctatagctcatctggtagagcgctgccttgcaagcaggaggcggc
aggttcaagtcctgttaggtccac
1-15tRNA-Phe(gaa)[97626,97698]
gccgtcatagctcagttggtagagcaccggcctgaaaacccggtggccga

ggttcgagtcctcgtgtcggcac
1-16tRNA-Val(cac)[97704,97777]
gtccgttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[97896,97968]
gccttcgtagctcagtggttagagctgtcgcctctaagcgataggctgtt
ggttcaaatccagccgggggcac
1-18tRNA-Glu(ttc)[97972,98046]
ggtcgggtggtctgttggcaggccggtcgggttttcaccccgacattcg
cgggttcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[98126,98198]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[98280,98353]
gtcgtctgtagctcacctggttagagctcggcgtcgtatcccgaaggcatc
cgggttcgagtcggacagcagctc
1-21tRNA-Thr(tgt)[98427,98500]
gcctctgtagctcagtggcagagcaccgatctgtaaatcgggttgtcga
gcgttcgattcgttctctggggctc
1-22tRNA-Thr(ggt)[99002,99076]
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tgggttcaagtcctccagtagctc
1-23tRNA-Gly(gcc)[100546,100619]
gcgaaggtagctcagctggcagagcgccaccttgccaaggtggaggtcgc
gggatcgtaacccgttcttcgctc
1-24tRNA-Asp(gtc)[100623,100695]
ggccctgtagctcagaggaagagcgccggtctgtcgaatcggaggtcgcg
gtatcgtaatccgtcagggtcgc
1-25tRNA-Met(cat)[100755,100827]
gcctcactagctcattggttagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-26tRNA-Ile(gat)[100833,100907]
gcctgttagcggactggtcgtccgatccaagctgataactggcgtaagc
ggtgttcgattaccgagcaggtac
1-27tRNA-Arg(acg)[101001,101073]
gcctctatggtccaacggatatgacgccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-28tRNA-Val(gac)[101116,101188]
gtccgtgtagctcaggggtagagcgctgctcgacacgcaggaggaccga
ggttcgaaacctcgatggacac
1-29tRNA-Arg(cct)[101362,101435]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-31tRNA-Gln(ttg)[101976,102051]

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gcaggttcgagtcctgctaccccatc
1-32tRNA-Arg(tct)[102055,102130]
gccctttagctcagtggaacagagcggcgagcttctacctcgccggccgg
gagttcgaatctctccaggggcacca
1-33tRNA-Gln(ctg)[128819,128893]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[128900,128975]
tggggtgtccgttaatcaggcaaacgagcggactgttaatccgccctgc
aggttcgaatcctgccacccagcca

>JN699627.1 Mycobacterium phage Nappy, complete genome

1-1tRNA-Ser(gct)[31854,31937]
ggagggtagcatctggtgatgcaggggtcctgctaaggccctacggatt
cacaccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[32034,32110]
gccctgctgagcaaacggcaaacgctgccgattcagagtcgggtcatt
tccgggttcgactcccgaggcaggtac
1-3tRNA-Leu(gag)[32230,32304]
gtctctgtaggcaaatcgaaaagcccatcttgaggggtggtgcgtg
cgggttcgactcccgccagagacac
1-4tRNA-Leu(caa)[32305,32378]
gccgtggtaggccatctggcgagcccgagttcaagtttcggtgtttgc
gggttcgaatcccgccacggtac
1-5tRNA-SeC(tca)[69403,69499]
attctggcactggtgggcgggccaccggcgagcttcaagctgtcgt
ggccggagaaccgacggaaacatcccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[92634,92705]
cggggtgtagtgaaaaggcatcatgctggtttgggtaccagtgggtccg
gttcgagtcggggtccccgac
1-7tRNA-Trp(cca)[93144,93219]
aggggtagagccagctgggacggcagcgattccaaacccgccattgacg
gagttcgattctcgtaccctgccca
1-8tRNA-Tyr(gta)[93221,93304]
ccggtaagccatgttggttatggcaggcagactgtaaatctgtcgtctt
cggacttcgggggttcgattccctctaccggac
1-9tRNA-Pyl(cta)[94096,94168]
gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[94318,94392]
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cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[94519,94590]
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gttcgactccggaggcgctc
1-12tRNA-Glu(ctc)[94658,94729]
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gttcgactcctcgtgggagtg
1-13tRNA-His(gtg)[94731,94804]
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gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[94966,95040]
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tcggttcgaatccgacctggtccac
1-15tRNA-Phe(gaa)[95230,95302]
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ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[95308,95381]
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aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[95501,95574]
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aggttcgaccctgccggaggcac
1-18tRNA-Glu(ttc)[95579,95655]
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cgcgggttcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[95735,95807]
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ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[95867,95940]
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cggttcgagtcggacagcagccc
1-21tRNA-Thr(tgt)[96014,96087]
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gcgttcgattcgttctctggggctc
1-22tRNA-Thr(ggt)[96131,96203]
gctgggttagctcagttggtagagcgttcctcgggtacgggaaaggcccgg
ggttcaatccccgactcagctc
1-23tRNA-Gly(gcc)[97526,97599]
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gggatcgtaacccgttcttcgctc
1-24tRNA-Asp(gtc)[97603,97675]
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gtatcgtaatccgtcagggtcgc
1-25tRNA-Met(cat)[97735,97807]
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ggttcgattccagggtgaggtac
1-26tRNA-Ile(gat)[97813,97887]

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gggttcgattcaccgagcaggtac
1-27tRNA-Arg(acg)[97981,98053]
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tgttcgattcgcgctaggggcac
1-28tRNA-Val(gac)[98096,98168]
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ggttcgaaacctcgcatggacac
1-29tRNA-Arg(cct)[98342,98415]
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aggttcgaatcctctcagaggcac
1-31tRNA-Gln(ttg)[98975,99050]
tggggtatggtggcaatctggcagtcgcccgaggacttgacttcggaggt
gcaggttcgagtcctgctaccccatc
1-32tRNA-Arg(tct)[99054,99127]
gccctttagctcagtgagacagagcggcgagcttctacctcgcgggccgg
gagttcgaatctctccaggggcac
1-33tRNA-Lys(ttt)[99195,99271]
gggccggtatcttagtctggtcaaagaagcggacttttaatccgcgcgc
gtgggttcgaatcccacccggcccacc
1-34tRNA-Gln(ctg)[127392,127466]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattctt
ggttcgaatccaggcgagcaacca
1-35tRNA-Asn(gtt)[127473,127549]
tggggtgtagttcaatctggcagaacgctcgactgttaatcagtagttg
aaggttcgagtccttccatcccagcca

>KJ174317.1 Salmonella phage vB_SalM_SJ2, complete genome

1-1tRNA-Ser(gct)c[96090,96178]
ggaaggttccccgagaggtttaagggactcgactgctaatcgagtggggc
tttagccccgaaggttcgaatccttcacctccgcca
1-2tRNA-Ile(gat)c[96183,96266]
gcgggagccataggggttgccagtagccgactgatcatcggcgacgac
actggacaggttcgaatcctgttctcccgtcca
1-3tRNA-Asn(gtt)c[96741,96816]
gacgatgtagttcagtcggtagaacggcgtctgttaaatcgtatgtcgc
aggttcaagtcctgccatcgtcgcca
1-4tRNA-Met(cat)c[97683,97759]
tggtcctgtagctcagtggttaagtagcagtgaaactcataattcattggtc
gttggttcaaatccaaccaggatcatc

>KJ668714.2 Escherichia phage e11/2, complete genome

1-1tRNA-Lys(ttt)c[69809,69902]
acggaacgttcggatatggtcgagatatggccttttaaatattgagtag
cgtcaactgcttgataaccgggttcgaatcccggcggttctgtac
1-2tRNA-Arg(tct)c[70075,70151]

cggggcatagctcaattgtatagagcaacggacttctaataccgtaggttg
aaggttagaatccttctgcctcgacca
1-3tRNA-Met(cat)c[70863,70934]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggtcaattccacccaggcca
1-4tRNA-Thr(tgt)c[70941,71013]
gctgatttagctcagtaggtagagcacctcacttgtaatgaggacgtcgg
cggttcgattccgccaatcagca
1-5tRNA-Ser(tga)c[71020,71108]
tggaggcgtggcagagtgtttaatgcaccggtcttgaaaaccggcagtc
gctccggcgactcataggttcgaatcctatcgctccgt
1-6tRNA-Pro(tgg)c[71109,71183]
cttcgtgtagctcagttggtagagcgtctgcttgggagcagaatgtcg
caggttcaaatcctgcccgagac
1-7tRNA-Gly(tcc)c[71196,71267]
gcggatatcgataatggcattacctcagactccaatctgatgtga
gttcgatttcattatccgctc
1-8tRNA-Leu(taa)c[71274,71360]
gcgagaatggtaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttggtggttcgagtcaccttctctgacca
1-9tRNA-Gln(ttg)c[71361,71434]
tgggaattagccaagttggttaaggcatagcacttgactgctagatgcaa
aggttcgagtcctttattcccage

>KJ451625.1 Bacillus phage Bcp1, complete genome

1-1tRNA-Ser(gct)[30794,30882]
ggaagggtactcaagttggtgaagaggtcagttgctaaactgatagtac
ctattacaggtagcaagggttcgaaccccttcctcca
1-2tRNA-Cys(gca)[30893,30966]
gagggtgtaccgaagcggtcaacggcacagattgcaaccctgttgctcg
tgggttcaaatcccaccatcctct
1-3tRNA-Asn(gtt)[31012,31087]
gtgctttagctcagtcggtagagctggtggctgtaaccactgtgtcgt
aggttcgattcctacctagcacgcca
1-4tRNA-Gly(tcc)[31091,31165]
ggggcattgggtatattggctattactcttggctccaaccaagcaagtc
ggttcgattccgacatgtccctcca
1-5tRNA-Asp(gtc)[31170,31243]
ggctcggttagttaacggtaaaatacatgactgtctatcatgggtcacgg
gttcaactcccgtacgggtcgcca
1-6tRNA-Glu(ttc)[31252,31327]
tggcgattggtgaagcgggttaacacactcggcttctaccgaggatgc
gtgggtcgatccccacatgcgctat
1-7tRNA-Ile(tat)[31330,31403]
atccctttagccaagttggtcaaggcagtaggattatgtcctgcgtagcgg

aggttcgactcctccaagggcg
 1-8tRNA-Arg(tct)[31523,31598]
 taccctttagccaagtggactaaggcaacgggcttctatcccgaagatc
 gtgggttcaaatcctacaggggtgt
 1-9tRNA-Ser(tga)[31689,31774]
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 gaaagcgtgcgggggttcgaatccctcttctcggc
 1-10tRNA-Gln(ttg)[31854,31929]
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 ggaggttcgacccttcaccgaagt
 1-11tRNA-His(gtg)[32007,32080]
 cagtgtgtgtgaagtggctaacacggacgactgtggatcgttcattcg
 caggttcgaatcctgtcatgctga
 1-12tRNA-Pro(tgg)[32177,32249]
 gtggatataggctagttggtcagtcactccgttggggcggaggtcacgc
 aggttcgactcctgctatccgca
 1-13tRNA-Phe(gaa)[32351,32425]
 ggatagatagctgagatggattagcagtggttgaaccactagaggtt
 ggatcgttaccactctgtccacca
 1-14tRNA-Tyr(gta)[32432,32514]
 gggcgtgcaatcattggagagataagctgactgtaaatcagtggtcattg
 actgtgaaggttcgaatccttcattccacca
 1-15tRNA-Leu(taa)[32516,32602]
 atcggaatgttggaattggtagacataacggacttaaaatccgttgctcc
 ttggggcgtgaggggtcagtcctcttccgatacca
 1-16tRNA-Ile(gat)[32604,32678]
 actagtgtagctcagaggtagagcagtgcttgataaggcattggctgtt
 ggtcaatccaaccactagtagca
 1-17tRNA-Leu(tag)[32686,32770]
 tgtcggagtggtggaactggatatacatcggcacttagaatgccgtgcct
 tcgggattgaggggtcgcactccctccttcgacatc
 1-18tRNA-Met(cat)[32921,32995]
 tacggttatagctcagtggttagagtggtgtcctaagcccaaggcga
 tgggtcaatcccatctaaccgtatc

>KF156338.1 Synechococcus phage S-MbCM7, complete genome

1-1tRNA-Leu(taa)[17996,18079]
 gcgagtatggcggaatcggttagacgcatcagacttaaaatctgctgacca
 ctggtcgtgggagttcaagtcctcattcgac
 1-2tRNA-Thr(tgt)[19399,19472]
 gccactttagctcagttggatagagcaacggttttgtaaaccgtaggctg
 tcggttcaagtccgacatgtgct
 1-3tRNA-Asn(gtt)[19498,19572]
 ttctctatagctcagatggtagagcagtgactgttaatcactatgtcc
 ctggttcgatcccaggtggaggagt

1-4tRNA-Arg(tct)[152502,152577]
gtctcagtagctcagatggatagagcaattcacttctaataattggtcg
ggggttcgagtcctcctgagacgcc
1-5tRNA-Leu(tag)[152580,152662]
gtcggatggcggaattggtagacgcgctggttttaggtaccagtgtctt
atgacgtggaggttcaagtcctcttaccgacac
1-6tRNA-Val(tac)[152665,152736]
gctcgaatagctcagaggtagacacctcctttacacggagattgtcggg
ggttcgatcccctcttcgagca
1-7tRNA-Gly(tcc)[15268,155340]
gcgagtgtagttcagtggtagaacgttagcctccaagctaaatgtcgtc
ggttcaagtcgatctctcgtc

>JN699626.1 Mycobacterium phage MoMoMixon, complete genome

1-1tRNA-Ser(gct)[31665,31748]
ggagggtagcatctggtgatgcaggggtcctgctaaggccctacggatt
cacacccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[31845,31921]
gccctgctgagcaactggcaaaagctccgcattcagagtgcgggtcatt
tccgggttcgactcccgggcagggtag
1-3tRNA-Leu(gag)[32041,32115]
gtctctgtaggcaatcggaagccgcatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[32116,32189]
gccgtgtaggcatctggcgagcccgagttcaagtttcggtgtttgc
gggttcgaatcccgcacggtag
1-5tRNA-SeC(tca)[67969,68065]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgtc
ggccggagaaccgaccggaacatcccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[91238,91312]
cggggtgtagttcagtttgaagagcgttggtttgggaccaagttgtcg
caggttcgaatcctgtcaccgac
1-7tRNA-Trp(cca)[91327,91397]
gggtctgtgcacaggtgccccgacggtctcaaagccgaaggcgggggtt
cgattccctccagcctgcca
1-8tRNA-Pyl(cta)[92594,92666]
gcaccattgtcfaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-9tRNA-Met(cat)[92816,92890]
agcgggtgtagagcagctaggtagctcggggtcataaccggaggacg
cgtgttcgaatcacgccaccgccac
1-10tRNA-Cys(gca)[93017,93088]
gcgcctttggcggaatggctacgtgctcggtgcaaccgagttatcccg
gttcgactccgggaggcgctc
1-11tRNA-Glu(ctc)[93093,93167]

gggccgttggagtagatggatatctgccaccctctcaaggtggagatca
cgggttcaagtcccgtacggactgc
1-12tRNA-His(gtg)[93169,93242]
gtggccgtagttcagccggtagaacgctgggttgtgatcccagtcgtcga
gggttcgagtcctccggtcaccc
1-13tRNA-Ala(tgc)[93404,93478]
gggcctgtagctccaattggtagagcagcatccttgcaagatgacggctg
tcggttcgaatccgacctggtccac
1-14tRNA-Phe(gaa)[93668,93740]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgggccga
ggttcgattcctcgtgtcggcac
1-15tRNA-Val(cac)[93746,93819]
gtccgtttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-16tRNA-Lys(ctt)[93938,94010]
gccttcgtagctcagtggtagagctgtcgcccttaagcgataggctgtt
ggttcgaatccagccgggggcac
1-17tRNA-Glu(ttc)[94015,94091]
ggtcgggtcggctcgtcgtatggccagtcggatttctactccggacatt
cgcgggttcaattcccgtcccgatcgc
1-18tRNA-Gly(tcc)[94171,94243]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacga
ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[94303,94376]
gtcgtcgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cgggttcgagtcggacagcagctc
1-20tRNA-Thr(tgt)[94450,94523]
gccttcgtagctcagtggcagagcaccgatctgtaaatcgggttgtcga
gcgttcgattcgttctcgggctc
1-21tRNA-Thr(ggt)[94567,94639]
gctgggttagctcagtggttagagcgttcccttggtatgggaaagggccgg
ggttcaatcccccgactcagctc
1-22tRNA-Gly(gcc)[95962,96035]
gcgaaggtagctcagctggcagagcgccaccttgccaaggtggaggtcgc
gggatcgtaacccgttcttcgctc
1-23tRNA-Asp(gtc)[96039,96111]
ggccctgtagctcagaggaagagcgccggtctgtcgaatcggaggtcgcg
gtatcgtaatccgtcaggtcgc
1-24tRNA-Met(cat)[96171,96243]
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1-25tRNA-Ile(gat)[96249,96323]
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1-26tRNA-Arg(acg)[96417,96489]
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1-27tRNA-Val(gac)[96532,96604]
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1-28tRNA-Arg(cct)[96778,96851]
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1-30tRNA-Gln(ttg)[97392,97467]
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gcaggttcgagtcctgctaccccatc
1-31tRNA-Arg(tct)[97471,97544]
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1-32tRNA-Lys(ttt)[97612,97688]
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gtgggttcgaatccaccggccacc
1-33tRNA-Gln(ctg)[126103,126177]
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ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[126184,126259]
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>KF582788.2 Escherichia phage vB_EcoM_JS09, complete genome

1-1tRNA-Met(cat)[95924,95998]
ggccctgtagctcaatgggagagctgtcagctcataactgataggtagct
ggatcgaaaccagccagggtcacca
1-2tRNA-Arg(tct)[96002,96078]
cgaggcatagctcaattgtatagagcaacggacttctaaccgtaggttg
aaggttagaatcctctgtctcgacca

>KJ190158.1 Escherichia phage vB_EcoM_FFH2, complete genome

1-1tRNA-Pro(tgg)c[61919,61995]
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agtgttcgaatcactccgtggagacca
1-2tRNA-Met(cat)c[62007,62081]
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ggttcaattccaccagggccacca
1-3tRNA-Thr(tgt)c[62083,62158]
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aggttcaagtcctgccatcagcacca
1-5tRNA-Ser(tga)c[62361,62451]
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1-6tRNA-Tyr(gta)c[62566,62652]
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1-7tRNA-Arg(tct)c[62657,62731]
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>JN412592.1 Mycobacterium phage LinStu, complete genome

1-1tRNA-Ser(gct)[31919,32002]
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1-2tRNA-Leu(cag)[32099,32175]
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tccgggttcgactcccgaggcagggtac
1-3tRNA-Leu(gag)[32295,32369]
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cgggttcgactcccgccagagacac
1-4tRNA-Leu(caa)[32370,32443]
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gggttcgaatcccgccacggtac
1-5tRNA-SeC(tca)[68341,68437]
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1-6tRNA-Pro(tgg)[91636,91710]
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caggttcgaatctgtcaccggac
1-7tRNA-Trp(cca)[91725,91795]
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cgattccctccaggcctgcca
1-8tRNA-Pyl(cta)[92932,93005]
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1-9tRNA-Met(cat)[93154,93228]
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1-10tRNA-Cys(gca)[93356,93427]
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1-11tRNA-Glu(ctc)[93495,93566]
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1-12tRNA-His(gtg)[93621,93694]
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1-13tRNA-Ala(tgc)[93858,93931]

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1-14tRNA-Phe(gaa)[94121,94193]
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1-15tRNA-Val(cac)[94199,94272]
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1-16tRNA-Lys(ctt)[94391,94463]
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1-17tRNA-Glu(ttc)[94467,94542]
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cggggttcgattcccgtcccactgc
1-18tRNA-Gly(tcc)[94672,94744]
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1-19tRNA-Thr(cgt)[94804,94878]
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cggttcgagtcggacagcagcccc
1-20tRNA-Thr(tgt)[94879,94951]
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1-21tRNA-Thr(ggt)[95359,95431]
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1-22tRNA-Gly(gcc)[96754,96827]
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gggatcgtaaccgttcttcgctc
1-23tRNA-Asp(gtc)[96831,96903]
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gtatcgtaatccgtcagggtcgc
1-24tRNA-Met(cat)[96963,97035]
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ggttcgattccagggtgaggtac
1-25tRNA-Ile(gat)[97041,97115]
gcctgttagcggactggtcgtccgatccaagctgataactggcgtaagc
ggtgttcgattcaccgagcaggtac
1-26tRNA-Arg(acg)[97209,97281]
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tgttcgattcgcgctaggggcac
1-27tRNA-Val(gac)[97324,97396]
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ggttcgaaacctgcatggacac

1-28tRNA-Arg(cct)[97570,97643]
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1-30tRNA-Gln(ttg)[98184,98259]
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1-31tRNA-Arg(tct)[98263,98338]
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gagttcgaatctctccaggggcacca

1-32tRNA-Gln(ctg)[124919,124993]
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ggttcgaatccagggcgagcaacca

1-33tRNA-Asn(gtt)[125000,125075]
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aggttcgaatcctgccaccccagcca

>GU396103.1 Aeromonas phage PX29, complete genome

1-1tRNA-Ala(cgc)c[84087,84161]
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tacggttcgaatccgttatagtgtg

1-2tRNA-Leu(tag)c[93173,93257]
gcggatgtggtgaaattggcagtcacactagatttaggatctagcgcctc
cgggcatgtcgggtcagtcgaccatccgcacca

1-3tRNA-Ser(gct)c[93264,93351]
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1-4tRNA-Ser(tga)c[93708,93799]
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ggttaaccccgctccatccgttcgaatcggatcgctccgcca

1-5tRNA-Gln(ttg)c[93940,94013]
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tggttcgagcccagttacccccgc

1-6tRNA-Pro(tgg)c[94126,94200]
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1-7tRNA-Phe(gaa)c[94347,94423]
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1-8tRNA-His(gtg)c[94431,94507]
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cgggttcgaagcccgctccgccaccca

1-9tRNA-Thr(tgt)c[94589,94673]
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1-10tRNA-Tyr(gta)c[94683,94774]

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 1-11tRNA-Met(cat)c[94799,94873]
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 1-12tRNA-Glu(ttc)c[94894,94969]
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 1-13tRNA-Met(cat)c[95503,95577]
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 1-14tRNA-Lys(ttt)c[95770,95845]
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 1-19tRNA-Asp(gtc)c[97317,97393]
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 >JQ691611.1 Cronobacter phage CR9, complete genome
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1-2tRNA-Cys(gca)[148216,148292]
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1-3tRNA-Leu(caa)[148294,148373]
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1-4tRNA-Tyr(gta)[149115,149201]
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1-5tRNA-Ser(gga)[149208,149302]
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1-6tRNA-Lys(ttt)[149369,149445]
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1-7tRNA-Asn(gtt)[149613,149688]
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1-8tRNA-Glu(ttc)[149740,149817]
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1-9tRNA-Asp(gtc)[149912,149987]
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1-10tRNA-Ile(gat)[149994,150069]
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1-11tRNA-Pro(tgg)[150074,150150]
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1-12tRNA-Met(cat)[150157,150231]
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1-13tRNA-Leu(tag)[150238,150315]
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1-14tRNA-Gly(tcc)[150324,150400]
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1-15tRNA-Gln(ttg)[150441,150516]
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1-16tRNA-His(gtg)[150589,150664]

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 1-4tRNA-Trp(cca)c[69518,69591]
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 gttcgattcctctatccccctgcca
 >KJ489400.1 Bacillus phage Hoody T, complete genome
 1-1tRNA-Asn(gtt)[32368,32442]
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 1-2tRNA-Gln(ttg)[32448,32520]
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 1-3tRNA-Trp(cca)[32689,32762]
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 1-4tRNA-Ser(tga)[32764,32851]
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 1-5tRNA-Asp(gtc)[32853,32926]
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1-6tRNA-Leu(tag)[33071,33148]

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1-7tRNA-Tyr(gta)[33155,33238]

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1-8tRNA-Ser(gct)[34151,34237]

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>KJ489397.1 Bacillus phage CAM003, complete genome

1-1tRNA-Asn(gtt)[32547,32621]

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1-2tRNA-Gln(ttg)[32627,32699]

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1-3tRNA-Trp(cca)[32868,32941]

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1-4tRNA-Ser(tga)[32943,33030]

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1-5tRNA-Asp(gtc)[33032,33105]

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gggttcgaatcccgttatcctcgt

1-6tRNA-Leu(tag)[33250,33327]

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tgtgggttcgacccctccttcggtatc

1-7tRNA-Tyr(gta)[33334,33417]

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tcgagttctcaggttcgagtcctgattctgctat

1-8tRNA-Ser(gct)[34330,34416]

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>KJ094033.1 Listeria phage LP-048, complete genome

1-1tRNA-Met(cat)c[27810,27883]

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1-2tRNA-Pro(tgg)c[28776,28850]

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1-3tRNA-Arg(tct)c[29970,30040]

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1-4tRNA-Gly(tcc)c[30298,30368]
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 gttcgaatccccctaccgct
 1-5tRNA-Asn(gtt)c[30437,30510]
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 ggttcgaatcctagtggtcca
 1-9tRNA-Trp(cca)c[31509,31582]
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 ggggtcaagtcctactatccctgt
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 ggttcaagtcctactacaagca
 1-12tRNA-Tyr(gta)c[31829,31910]
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 ggggtccaaggttcgagtccttgatggcaca
 1-13tRNA-Leu(tag)c[32229,32313]
 tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
 caaggatatgtgggttcgaatcccactctcggtat
 1-14tRNA-Asp(gtc)c[32779,32851]
 gtgcgtatgatataatggctattatactcactgtctatcgagaaatagg
 ggttcgattccccttacgtgcgc
 1-15tRNA-Ile(gat)c[32955,33027]
 accgcatagcttaggaggcaaagcaaccgaccgataatcggtagtcctt
 ggttcaattccaagtgttggtac
 1-16tRNA-Ser(gct)c[33204,33290]
 ggagagttgtcagataggcttaatgatacgggtgctaactcgttgact
 agtaatagtagcaagggttcgaatcccttactctct
 1-17tRNA-Cys(gca)c[33371,33441]
 gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
 gttcaattcccattaccgct
 >KM051843.1 Bacillus phage Bobb, complete genome
 1-1tRNA-Met(cat)c[128786,128860]

tgggtctctagcttagtggttaaagctgccagctcataactggttaagagag
gggttcgaatcccttgggaccatc
1-2tRNA-Trp(cca)c[129919,129993]
tgagggtctagctcaactggtagagcgtcggtctcctcaaaaccgaaggta
cagggtcagtcctgtggctcttgt
1-3tRNA-His(gtg)c[130822,130892]
gagaatgtagcttaacggtaaagcgtgggacgtgactccagctatccaa
gttcgattcttggtattctca
1-4tRNA-Gly(tcc)c[130903,130976]
gtggtcttagtttaatggtagaacagtcggtttccaccgcagatatgg
gttcaactcccttagaccatacca
1-5tRNA-Met(cat)c[132152,132225]
tacgatgctgaggggtcggtacccgacgaggtctcataagccttgtttag
taagttcaactctgccttagcaa
1-6tRNA-Phe(gaa)c[132299,132373]
tggactggtagctcagttggtagagcaggggctgaaaatccctgtgtcg
gaggttcgaatccttctcagtcct
1-7tRNA-Asn(gtt)c[132750,132823]
ttgtcgataactcaatggtagagtgtgactgttaatacaagaagttgt
aggttcgagtcctactacgacagt

>KJ174318.1 Salmonella phage vB_SalM_SJ3, complete genome

1-1tRNA-Ser(gct)c[81717,81805]
ggaaggttgcgcgagaggttaagggactcgactgtaacgagtgaggc
tttagcccccgaaggttcgaatccttcaccttcgcca
1-2tRNA-Tyr(gta)c[81881,81962]
gtgagtggtgcagagcggtcgaatgcgcctgactgtaaatcaggtatccc
acgcggtggttcaatccatccactcacacca
1-3tRNA-Asn(gtt)c[82719,82794]
gacgatgtagttcagtcggtagaacgcggtctgttaaacgtatgtcgc
aggttcaagtcctgccatcgtcgcca
1-4tRNA-Met(cat)c[83207,83282]
ggccccgtagctcagtggttagagcagtcgactcataatcgattggtcgc
tgggtcaagtcagccagggtcacca

>KJ489398.1 Bacillus phage Evoli, complete genome

1-1tRNA-Asn(gtt)[32278,32352]
tgtgctttagctcagtcggttagagctgggtggtgtaaccactgtgtcg
taggttcgagccctacctagcacgt
1-2tRNA-Gln(ttg)[32358,32430]
tgctcttagccaagcggtaaggcacgggacttgactctcggacgcgt
agttcgaatctagcagaggcatc
1-3tRNA-Trp(cca)[32599,32672]
gggagtttagtttagtggtaaacctcggtctcctcaaaaccgaagtcatat
gttcgattcgtagctcctgcca
1-4tRNA-Ser(tga)[32674,32761]

ggagggtggcagagtggattattgcagcggctctgaaaaccgccgaggg
taaaacctccgtgagttcaaattcacacctctcca
1-5tRNA-Asp(gtc)[32763,32836]
tggggatatagtagaggtaaacacgcacggctgtctaccgtgaagcac
gggttcgaatcccgttatcctcgt
1-6tRNA-Leu(tag)[32981,33058]
tgccgaagtaatccaatcaggtagatagcggtttagaaaccgtccag
tgtgggttcgacccccctcctcggtatc
1-7tRNA-Tyr(gta)[33065,33148]
tggcagaatagtaacggcgaacgacagtgactgtaaatcacccctcat
tcgagttctcaggttcgagtcctgattctgctat
1-8tRNA-Ser(gct)[34061,34147]
ggaggggtactcaagcggcgaagaggggacttgctaagtcctagtagc
ttaacaggtagcaggggttcgaatccctcccctcct

>KJ535721.1 *Listeria* phage List-36, complete genome

1-1tRNA-Cys(gca)[97557,97627]
gcgggtataaccaactggaaggtagtagactgcaaattacgtatatgg
gttcaattcccattaccgct
1-2tRNA-Ser(gct)[97706,97792]
ggagagttgtcagagaggcttaatgatacgggttgctaactcgtgtact
agtaatagtagcaagggttcgaatcccttactctcct
1-3tRNA-Ile(gat)[97969,98041]
gccagcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
ggttcaattccaagtgttggtac
1-4tRNA-Asp(gtc)[98145,98217]
gtgcgtatgatataatggctattatactcgactgtctatcgagaaatagg
ggttcgattccccttacgtgcgc
1-5tRNA-Leu(tag)[98683,98767]
tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
taaggatatgtgggttcgaatcccactctcggtat
1-6tRNA-Tyr(gta)[99128,99209]
gtgccattcgcatagaggcaattgcaggggactgtaactcccctcccttc
ggggttccaaggttcgagtccttgatggcgca
1-7tRNA-Thr(tgt)[99292,99363]
gcttgatatgtcaattggtagaacagtggttttgtaagcctcagacgtg
ggttcaagtcctactacaagca
1-8tRNA-Gln(ttg)[99382,99454]
tggtctgtagccaagcggtaaggcaacggatttgattccgtgatacgtt
ggttcgaatccaactagaccagc
1-9tRNA-Trp(cca)[99456,99529]
taggggtatagtttatctggtaaaaattggttccaactccaatgaggt
gggttcaagtcctactatccctgt
1-10tRNA-Lys(ttt)[99654,99725]
ggagttatggtgaaatggctatcactgcgggttttaccctgtattcta

ggttcgaatcctagtggtcca
 1-11tRNA-Phe(gaa)[99731,99802]
 gtagtcctagctgagatggattagcacttgctgaaaagcaagagaggca
 ggttcgatacctgcggactcca
 1-12tRNA-Ser(tga)[99815,99906]
 ggaagggtgtagagcttggaatacgtagcttgaaaactagttgcc
 ctggaatacagggtacaagggttcaatcccttaccttct
 1-13tRNA-Asn(gtt)[100528,100601]
 gtgtccttaactcagaggtcagagtgccgtcctgtaagtcggaagtcgc
 tgggtcaaatccagcaggatacgc
 1-14tRNA-Gly(tcc)[100670,100740]
 gcgggtatagtagtataagggtagtagtaccgaaggttccaacctgtagtgggg
 gttcgaatccccctaccgct
 1-15tRNA-Arg(tct)[100987,101057]
 gtccctatggtgtagtgatgcacaagggttctactcccttagcgcgg
 gttcgaatcctgctgaggact
 1-16tRNA-Pro(tgg)[102175,102249]
 cagggtgtagctcagtttggttagagtacccgcttggagacgggaagtc
 gtaggttcgagtcctaccacctga
 1-17tRNA-Met(cat)[103142,103215]
 ttgtcccgtagctagaagggtcgagcaaggagctcataactcctcggtttg
 ggttcgattcccaacggggcaatc
 >KJ535722.1 Listeria phage LMSP-25, complete genome
 1-1tRNA-Met(cat)c[41701,41774]
 ttgtcccgtagctagaagggtcgagcaaggagctcataactcctcggtttg
 ggttcgattcccaacggggcaatc
 1-2tRNA-Pro(tgg)c[42667,42741]
 cagggtgtagctcagtttggttagagtacccgcttggagacgggaagtc
 gtaggttcgaatcctaccacctga
 1-3tRNA-Arg(tct)c[43859,43929]
 gtccctatggtgtagtgatgcacaagggttctactcccttagcgcgg
 gttcgaatcctgctgaggact
 1-4tRNA-Gly(tcc)c[44176,44246]
 gcgggtatagtagtataagggtagtagtaccgaaggttccaacctgtagtgggg
 gttcgaatccccctaccgct
 1-5tRNA-Asn(gtt)c[44315,44388]
 gtgtccttaactcagaggtcagagtgccgtcctgtaagtcggaagtcgc
 tgggtcaaatccagcaggatacgc
 1-6tRNA-Ser(tga)c[44626,44717]
 ggaagggtgtagagcttggaatacgtagcttgaaaactagcttacc
 ctggaatacagggtacaagggttcgaatcccttaccttct
 1-7tRNA-Phe(gaa)c[44730,44801]
 gtagtcctagctgagatggattagcgttgcttgaaaagcaagagaggca
 ggttcgatacctgcggactcca

1-8tRNA-Lys(ttt)c[44807,44878]
 ggagttatggtgaaatggctatcactgcgggttttaccctgtattcta
 ggttcgaatcctagtggtcca
 1-9tRNA-Tyr(gta)c[45202,45283]
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 ggggttccaaggttcgagtccttgatggcgca
 1-10tRNA-Leu(tag)c[45644,45728]
 tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
 caaggatatgtgggttcgaatcccactctcggtat
 1-11tRNA-Asp(gtc)c[46194,46266]
 gtgcgtatgatataatggctattatactcgactgtctatcgagaaatagg
 ggttcgattccccttacgtgcgc
 1-12tRNA-Ile(gat)c[46370,46442]
 gccagcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
 ggttcaattccaagtgttggtac
 1-13tRNA-Ser(gct)c[46619,46705]
 ggagagttgtcagagaggcttaatgatacgggttgctaactcgtgtact
 agtaatagtagcaagggttcgaatcccttactctcct
 1-14tRNA-Cys(gca)c[46785,46855]
 gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
 gttcaattccattaccgct
 >KC954774.1 Cronobacter phage CR8, complete genome
 1-1tRNA-Thr(tgt)[144252,144327]
 gctgattagctcagtaggtagagcgctcacttgaataggatgtcgc
 ggggtcgattcctgcatccagcacca
 1-2tRNA-Cys(gca)[144334,144410]
 gcaacgttcccgagctctggaacggctctcgctgcaaacgagatgagca
 ctggttcgaatccagtagctgtctcca
 1-3tRNA-Leu(caa)[144412,144488]
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 ccagttcgaatctgggaaggcgacca
 1-4tRNA-Ser(gga)[145194,145288]
 agtaggatggctgagtggttaaagcagcaccttggaagggtgcggatc
 gggcaaccctggtcccgaggattcaaatctccctcctactgcca
 1-5tRNA-Lys(ttt)[145293,145369]
 ggatcgtagctcaattggttagagcaagggacttttaatcccagggttc
 ggggttcgagtcctgacggtccacca
 1-6tRNA-Asn(gtt)[145535,145610]
 tggctcttcgtataatcggttattacggcgactgtaatccgtttatcc
 ggggttcgagtcgggaggaccagcca
 1-7tRNA-Glu(ttc)[145649,145727]
 gtcctggtagacaaacttggttaaagtcaccaccctttcaagtgagggtt
 tgagggttcgattcccctctcaggacgcca
 1-8tRNA-Asp(gtc)[145822,145897]

ggtcctatggtatcagcggtaaataactgcctgtcacgcgagagtcac
gggttcgaatcccgttaggaccgcca
1-9tRNA-Ile(gat)[146579,146654]
tggggattagctcagttggtagagcgctcgaccgataatcgagaggtcac
tggttcaagtcggtatccccaacca
1-10tRNA-Pro(tgg)[146725,146801]
cgggtgatagcgcagcctggtagcgcacatctggtttgggaccagagggtcg
ctggttcgattccagctacaccgacca
1-11tRNA-Met(cat)[146808,146882]
tgcgaggtagttcagcggtagaacaggggttcatacgccctcatgtcggc
agttcgattctgcccttcgaacca
1-12tRNA-Leu(tag)[146888,146965]
gtccagtagcccaattggtagaggcacttgatttaggatcatgtcagtg
atgagttcgaatctctcctggagtacca
1-13tRNA-Gly(tcc)[146972,147045]
gcgggcatggtatagtggttgtgccttagcctccaagctaatagtccg
gttcgatcccggatgcccgtcca
1-14tRNA-Gln(ttg)[147086,147161]
aggggattagtttaattggtaaaacatcgggtttgatcccacatcgtg
aggttcgaatcctccatcccccgcca
1-15tRNA-His(gtg)[147244,147319]
gtggccttaattcagaaggtagaatccccggttgtaaccgggcagtcgt
gggttcaagtcacacaggtcacccca
1-16tRNA-Ser(tga)[148000,148092]
ggaagatagggcgtagtgtacgcacccggattgaaccccgcccgcgtg
tggcgacccacgggtgatagttcgactctattatcttccgcca
1-17tRNA-Ser(gct)[148097,148183]
agaagagtggcgaaatcggtagccgcaccggactgctaataccgggtccc
tcggggcctgagagttcaagtctctcctcttctgcca
1-18tRNA-Phe(gaa)[148189,148264]
ggaactgtagctcagttggtagagcgggtgcctgaagagcagcgcgtcag
cggttcaaatccgttcagttccacca

>KJ094030.1 *Listeria* phage LP-083-2, complete genome

1-1tRNA-Met(cat)c[31951,32024]
ttgtcccgtagctagaaggctcgagcaaggagctcataactcctcggtttg
ggttcgattcccaacggggcaatc
1-2tRNA-Pro(tgg)c[32917,32991]
cagggtgtagctcagttggttagagtacccgcttggagacgggaagtc
gtaggttcgagtcctaccaccttga
1-3tRNA-Arg(tct)c[34109,34179]
gtccttatggtgtagtggatgcacaagggttctactcccttagcgcgg
gttcgaatcctgctgaggact
1-4tRNA-Gly(tcc)c[34437,34507]
gcgggtatagtagtataagggtagtagtaccgaaggttccaacctgtagtgggg

gttcgaatccccctaccgct
 1-5tRNA-Asn(gtt)c[34576,34649]
 gtgtccttaactcagaggtcagagtgccgtcctgtaagtcggaagtcgc
 tggttcaatccagcaggatacgc
 1-6tRNA-Ser(tga)c[35271,35362]
 ggaagggtgtagagcttggaatacgcctgcttgaactagttgcc
 cttggaatacagggtacaagggttcaatcccttaccttcct
 1-7tRNA-Phe(gaa)c[35375,35446]
 gtagtcctagctgagatggattagcgcttgcttgaagcaagagaggca
 ggttcgatacctcggactcca
 1-8tRNA-Lys(ttt)c[35452,35523]
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 ggttcgaatcctagtggtcca
 1-9tRNA-Trp(cca)c[35648,35721]
 taggggtatagtttatctggtaaaatattggttccaactccaatgaggt
 gggttcaagtcctactatccctgt
 1-10tRNA-Gln(ttg)c[35723,35795]
 tggctctagccaagcggtgaaggcaacggatttgattccgtgatacgtt
 ggttcgaatccaactagaccagc
 1-11tRNA-Thr(tgt)c[35814,35885]
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 ggttcaagtcctactacaagca
 1-12tRNA-Tyr(gta)c[35968,36049]
 gtgccattcgcatagaggcaattgcaggggactgtaactccccctcccttc
 ggggttccaaggttcgagtccttgatggcgca
 1-13tRNA-Leu(tag)c[36410,36494]
 tgccgagatggtggaactggtatacgcgtagacttagaatctgctgtcc
 taaggatatgtgggttcgaatcccactctcggtat
 1-14tRNA-Asp(gtc)c[36960,37032]
 gtgcgtatgatataatggctattatactcggctgtctatcgagaaatagg
 ggttcgattccccttacgtgcgc
 1-15tRNA-Ile(gat)c[37136,37208]
 gccagcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
 ggttcaattccaagtgttggtac
 1-16tRNA-Ser(gct)c[37385,37471]
 ggagagttgtcagagaggcttaatgatacgggttgctaactcgttgact
 agtaatagtlaccaagggttcgaatcccttactctcct
 1-17tRNA-Cys(gca)c[37550,37620]
 gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
 gttcaattcccattaccgct

>KJ591604.1 *Listeria* phage LMTA-148, complete genome

1-1tRNA-Met(cat)c[34489,34562]
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 ggttcgattcccaacggggcaatc

1-2tRNA-Pro(tgg)c[35455,35529]
cagggtgtagctcagtttggttagagtacccgcttggagacgggaagtc
gtaggttcgaatcctaccacctga

1-3tRNA-Arg(tct)c[36649,36719]
gtccttatggtgtagtggaatgcacaaggatttctactcccttagcgcg
gttcgaatcctgctgaggact

1-4tRNA-Gly(tcc)c[36966,37036]
gcgggtatagtaggtagtagtaccgaagttccaacatgtagtggg
gttcgaatccccctaccgct

1-5tRNA-Asn(gtt)c[37105,37178]
gtgtccttaactcagaggtcagagtccgtcctgtaagtcggaagtcgc
tggttcaatccagcaggatacgc

1-6tRNA-Leu(tag)c[37717,37801]
tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
caaggatatgtgggttcgaatcccactctcggtat

1-7tRNA-Asp(gtc)c[38267,38339]
gtgcgtatgatataatggctattatactcgactgtctatcgagaaatagg
ggttcgattccccttacgtgcgc

1-8tRNA-Ile(gat)c[38443,38515]
accagcatagcttaggaggcaaagcaaccgaccgataatcggtagtcctt
ggttcaattccaagtggtgtac

1-9tRNA-Ser(gct)c[38692,38778]
ggagagttgtcagagaggcttaatgatacgggttgctaactcgttgact
agtaatagtagcaagggttcgaatccctactctcct

1-10tRNA-Cys(gca)c[38857,38927]
gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
gttcaattcccattaccgct

>AB981169.1 Ralstonia phage RSY1 DNA, complete genome

1-1tRNA-Pro(cgg)c[18954,19043]
gccacgggtcggcgggttcagggtgcgcgtccggcccgcgggcgcgcg
cccacggggcggcagggtggtgaggccaccggtgcgcac

>KJ888149.1 Staphylococcus phage MCE-2014, complete genome

1-1tRNA-Met(cat)c[16397,16468]
ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
ggttcgaatcctacagagtcca

1-2tRNA-Trp(cca)c[38715,38786]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg

1-3tRNA-Phe(gaa)c[38793,38865]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca

1-4tRNA-Asp(gtc)c[38871,38946]
ttggtcattggtgtaactggttaacacactgccctgtcacggcagagagt
acgagttcgagctcgtatgggtcgt

>KC012913.1 Staphylococcus phage Team1, complete genome

1-1tRNA-Met(cat)c[14737,14808]
ggactcttagcttaaaggtaaagccaaccgctcataacggtttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[37954,38025]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[38032,38104]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[38110,38185]
tggctcattggtgtaactggttaacacactgccctgtcacggcagagagt
acgagttcgagtctcgtatgggtcgt

>KJ716335.1 Dickeya phage RC-2014, complete genome

1-1tRNA-Met(cat)[108684,108760]
gatggtgtagttcagttggttagaacgtgcgactcataatcgctttgtca
ctggttcaagtcctgccgccatcgcca

>JX128257.1 Escherichia phage ECML-4, complete genome

1-1tRNA-Ile(gat)c[75600,75675]
tgcttcatagctcagtaggtagagcgttcccctgataaggagaggtcac
tggttcgaatccagttgaagcaacca
1-2tRNA-Ser(gct)c[75679,75767]
ggaagggtgcccagaggtttaagggactcgactgctaatcgagtggggc
tttagccccgaagggtcgaatccttcaccttcgccca
1-3tRNA-Tyr(gta)c[76053,76136]
gtgagtggtgcagagcggtcgaatgcaggagactgtaaatctccccgtaa
cagcgcgggtggttcgaatccatccactcacacca
1-4tRNA-Asn(gtt)c[76393,76468]
gacgatgtagttcagtcggtagaacggtggactgttaatccatatgtcgc
aggttcaagtcctgccatcgtcgcca
1-5tRNA-Met(cat)c[76788,76863]
ggccccgtagctcagtggttagagcagtcgactcataatcgattggtcgc
tggttcaagtcagccagggtcacca

>KJ473422.1 Acinetobacter phage vB_AbaM_Acibel004, complete genome

1-1tRNA-Ser(tga)[59973,60061]
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tagtagccgataagggttcgattcctttatctacctcca
1-2tRNA-Tyr(gta)[60064,60151]
gggagttagacgactgttggttggtcgtagcagactgtaaatctgccctc
acaaagcatcattggttcgattccaatagctcccacca
1-3tRNA-Ser(gct)[60159,60247]
agagaataaatagcttaggtagtagactccctgctaaggagatcgactg
attaaatcggtttcgttcgagtacgatgttctctgccca
1-4tRNA-Arg(tct)[60663,60738]

acgtcattggtcgagcggattagcatcacacttctaattgacttacag
gggttcgaatcctctatggcgtacca
1-5tRNA-Phe(gaa)[60826,60900]
gggttggttaactcagtggttagtgactgtctgaagaacagtaggtcgt
agttcgattcttaccctcccacca
1-6tRNA-Met(cat)[61018,61092]
agcggatagtgtaataggtagcacgaaaggctcataaccttttagttcg
ggttcgattcccgcataccgcaacca
1-7tRNA-Ile(gat)[61099,61174]
ggtcgattagctcagttggttagcagtagcccgcataagctattggtcgc
tggttcaaatccagcatcgactacca
1-8tRNA-Asn(gtt)[61181,61266]
tcttgttagacaaactggtaaagtcagtggtgactgttaatccaccgctta
attgcactgtaggttcgaagcctaccacaagagcca
1-9tRNA-Pro(tgg)[61273,61349]
cagggtatagggcagtcggtagcctatttctttggaaagaaaatgtcg
atggttcaaatccatctaccttgacca
1-10tRNA-Gln(ttg)[61562,61637]
tcattggaagtatttacaggagatgcactatcggttggcggttaggttaa
gttggttcgaatccaaccccatgacc
1-11tRNA-Asp(gtc)[61689,61764]
ggctctgtagcatagcggattatgcgcctccctgtctaggagaaaaacga
gggttcgagtccttcagagtcgcca
1-12tRNA-Thr(tgt)[61994,62067]
gctggtatcgtataatggtattacgcttgtttgtaatacaagtcattgcca
gttcgattctgtctaccagcacca
1-13tRNA-Trp(cca)[62400,62470]
aggctgtagtgtaaagggtgcacagtggttccaaatcctcttgatgg
gttcgattcctatacgattct
1-14tRNA-Gln(ttg)[62534,62607]
tgtcgtatggtgtaattggttagcacctcagaattgactctgatagcgaag
gttcgatcccttctacgactcca
1-15tRNA-His(gtg)[62610,62684]
gtagtcttaggttatatggtaaaccacaggtgtgaccctgaaaaacat
ggttcgagtcctatgagattgcacca
1-16tRNA-Lys(ttt)[62687,62763]
tgatcggaagctaaagtggaggaagcactggacttttaatccagataaag
agggttcaactccctcccgatcaacca
1-17tRNA-Gly(tcc)[63016,63090]
gcgtgtgtcgtatagtggaattataggtggctccaaccatcgacgag
ggttcgattccctccacccgcacca
1-18tRNA-Glu(ctc)[63097,63172]
gttctcatcgtctaactggtcaggatgccacactctcaatgtggtgattt
gggttcgatcccaatgagaataacca

1-19tRNA-Glu(ttc)[63179,63253]
gctctattcgtctaattggctaggatttctcccttcaaggagaagaagag
ggatcgaaaccctcatagagtacca

1-20tRNA-Leu(tag)[63499,63575]
gctcaggtaagagaattggcatatcgacagctcttagaaactgtgattg
tgggttcgagtcaccctgagtacca

1-21tRNA-Leu(taa)[63582,63658]
gatcgggtaggctaactggcaaagctgacagacttaaaatctgtgttg
tgggttcgactcccaccccgattacca

>KJ018209.1 Shewanella sp. phage 1/4, complete genome

1-1tRNA-Gly(tcc)[42049,42124]
gcgtaattagctcagatggtagagcgctatcctccaagttagtggtcat
cggttcgaatccgatattacgtcca

1-2tRNA-Arg(tct)[42192,42268]
atctcgtagctcagttggatagagcaacagccttctaagctgtgggtcg
aaagttcgaatcttcacgggatacca

>JX128259.1 Escherichia phage ECML-134, complete genome

1-1tRNA-Arg(tct)c[68419,68494]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctgggtcgt
aggttcgatccctactgcctcgacca

1-2tRNA-Asn(gtt)c[68499,68573]
ggatgtgtagctcaatggcagagcgatcgctgtaagcgattggtata
ggttcgaatcctatcacgtccgcca

1-3tRNA-Tyr(gta)c[68578,68664]
ggggagtatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccaccactccccacca

1-4tRNA-Met(cat)c[68674,68748]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggttcaattccaccaggccacca

1-5tRNA-Thr(tgt)c[68750,68825]
gctgatttagctcagtaggtagagcaactcacttgtaatgagaaggtcgg
cggttcgattccgtcaatcagcacca

1-6tRNA-Ser(tga)c[68831,68920]
ggaggcgtggcagagtggtttaatgcaccggtcttgaaaaccggaagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca

1-7tRNA-Gly(tcc)c[69582,69655]
gcggatatcgtataatggattacctcagactccaatctgatgatga
gttcgattctcattatccgtcca

1-8tRNA-Leu(taa)c[69661,69747]
gcgagaatggtaaattggtaaaggcacagcacttaaaatgctcggaat
gatttccttgtgggttcgagtccttctcgcacca

1-9tRNA-Gln(ttg)c[69748,69821]
tgggaattagccaagttggaaggcactggattttgattccaggatgcaa
aggttcgagtcctttattccagc

>KM407600.1 Shigella phage Shf125875, complete genome
1-tRNA-Arg(tct)c[74227,74303]
cgaggcatagctcaattgtatagagaacggacttctaataccgtaggttg
aaggttagaatccttctgtctcgacca
1-2tRNA-Met(cat)c[74307,74381]
ggccctgtagctcaatgggagagctgtcagctcataactgataggtagct
ggatcgaaaccagccagggtcacca

>KF562341.1 Escherichia phage vB_EcoM_PhAPEC2, complete genome
1-tRNA-Arg(tct)c[74040,74115]
cgaggcatagctcagaaggaagagcaaggaccttaagtcctaggtcgt
aggttcgatccctactgtctcgacca
1-2tRNA-Asn(gtt)c[74120,74194]
ggatgtgtagctcagtggttagagcagttgactgttaataatggcccat
ggttcgaatccatgcacgtccgcca
1-3tRNA-Met(cat)c[74199,74273]
ggccctgtagctcaatgggagagctgtcagctcataactgataggtagct
ggatcgaaaccagccagggccacca

>KF554508.2 Bacillus phage CP-51, complete genome
1-tRNA-Met(cat)[98,171]
ggttccttagctcaattggttagagctaccggctcataaccggtgggttg
taggttcgagtcctacaggaatca
1-3tRNA-Trp(cca)[1433,1506]
tgggggtatagtttaacaggtaaaacagtggtctccaaaccaccgtcct
aggttcgaatcctagtaccctcgt

>KM216423.1 Staphylococcus phage P108, complete genome
1-tRNA-Met(cat)c[94979,95050]
ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
ggttcgaatcctacagagtcca
1-2tRNA-Phe(gaa)c[116672,116744]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaatccaatagaaacca
1-3tRNA-Asp(gtc)c[116750,116825]
tggctcattggtgtaactggttaacacactgccctgtcacggcagagagt
acgagttcgagtcctgtatgagtcgt

>KM373208.1 Listeria phage WIL-1, complete genome
1-tRNA-Cys(gca)[550,620]
cggggtataaccaactggaaggtagtagactgcaaatctacgtatatgg
gttcaattccattaccgct
1-2tRNA-Ser(gct)[699,785]
ggagagttgtcagagaggcttaatgatacgggttgctaactcgttgact
agtaatagtaccaagggttcgaatcccttactctcct
1-3tRNA-Ile(gat)[962,1034]
gccagcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
ggttcaattccaagtgttggtac

1-4tRNA-Asp(gtc)[1138,1210]
 gtgcgtatgatataatggctattatactcggctgtctatcgagaaatagg
 ggttcgattccccttacgtgcgc
 1-5tRNA-Leu(tag)[1676,1760]
 tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
 taaggatagtgggttcgaatcccactctcggat
 1-6tRNA-Tyr(gta)[2121,2202]
 gtgccattcgcatagaggcaattgcaggggactgtaactcccctcccttc
 ggggtccaaggttcgagtccttgatggcgca
 1-7tRNA-Thr(tgt)[2285,2356]
 gcttgatatgtcaattggtagaacagtggtttgaagcctcagacgtg
 ggttcaagtcctactacaagca
 1-8tRNA-Gln(ttg)[2375,2447]
 ttgctctgtagccaagcggtaaggcaacggatttgattccgtgatacgtt
 ggttcgaatccaactagaccagc
 1-9tRNA-Trp(cca)[2449,2522]
 taggggtatagtttatctggtaaaaattggttccaactccaatgaggt
 ggggtcaagtcctactatccctgt
 1-10tRNA-Lys(ttt)[2647,2718]
 ggagttatggtgaaatggctatcactgcgggttttaccgccgtattcta
 ggttcgaatcctagtggtcca
 1-11tRNA-Phe(gaa)[2724,2795]
 gtagtctagctgagatggattagcgttgctgaaaagcaagagaggca
 ggttcgatacctgcggactcca
 1-12tRNA-Ser(tga)[2808,2899]
 ggaaggttggtagagcttggtatacgtagcttgaaaactagtttgcc
 ctggaatacagggtacaagggttcaaatcccttaccttct
 1-13tRNA-Asn(gtt)[3521,3594]
 gtgtccttaactcagaggtcagagtgccgtcctgttaagtcggaagtcgc
 tgggtcaaatccagcaggatacgc
 1-14tRNA-Gly(tcc)[3663,3733]
 gcgggtatagtagtataagggtagtagccaaggtttccaacctgtagtgggg
 gttcgaatcccctaccgct
 1-15tRNA-Arg(tct)[3991,4061]
 gtccctatggtgtagtggatgcacaagggttctactcccttagcgcgg
 gttcgaatcctgctgaggact
 1-16tRNA-Pro(tgg)[5179,5253]
 cagggtgtagctcagtttggttagagtacccgcttggagacgggaagtc
 gtaggttcgaatcctaccacctga
 1-17tRNA-Met(cat)[6146,6219]
 ttgtcccgtagctagaaggctcgagcaaggagctcataactcctcggtttg
 ggttcgattccaacggggcaatc
 >KM507819.1 Escherichia phage 121Q, complete genome
 1-1tRNA-Gly(tcc)[72682,72754]

gcaggtaaagtgttgatggcggcatacagtacttccgattctgggggtgg
ggttcaaatacccatcctgctc
1-2tRNA-Ser(tga)[73491,73580]
ggatgaagtggcagagtgggttaatgcaacggcttgaaaaccgtcgaggg
tgaaagtctcctcgtgagttcaaattcaccttcaccgcca
1-3tRNA-Ser(act)[75464,75555]
ggaagggtggcagagcggttgattgcactcgcctactaagcgagcaagtg
ttagaaataacgcttcgtgggttcaaattccacctctttcgc
1-4tRNA-Met(cat)[75563,75637]
gggcctgtagctcagtggttagagcggctggctcataaccgattggtcgca
ggatcgttccctgccaggcccacca
1-5tRNA-Asn(gtt)[75728,75802]
ggttcgttggcctattggtgggcagcaactgttaattgccttagact
agttcaattctagtagcaaccgcca
1-6tRNA-Thr(tgt)[77896,77969]
gccgacttagctcagtaggttagagcgttcctctgtaagggaatgtcac
cagttcaattccggtagtcggcac

>KF301602.1 Caulobacter phage Cr30, complete genome

1-1tRNA-Arg(tct)[81958,82034]
ggtcgcatagctcaactggagagagcacaagccttctaagcttgggggtg
taggttcgagtcctactcgcgatcgcca
1-2tRNA-Asn(gtt)c[143895,143970]
tgaatagtagctcagttggttagagcgcctgactgttactcagaatgtcac
aggttcgagtcctgtctattcagcca
1-3tRNA-Gly(tcc)c[143974,144050]
gcatctatggatattggctagcacatctggttccaccagaaggatt
cggttcgagctccgaatagatgtcca
1-4tRNA-Met(cat)c[151271,151345]
ggaccagtagctcattggtgaagaactggctgctcataacagtctggtgat
tgttcgattcaatcctggctacca
1-5tRNA-Pro(tgg)c[153143,153219]
ctctcagtagctcaattggttagagtacgggcttgggagctcgggggttc
ctcgttcgagtcgaggctgggagacca

>KJ018211.1 Shewanella sp. phage 1/40, complete genome

1-1tRNA-Gly(tcc)[42797,42872]
gcgtaattagctcagatggtagagcgcctatcctccaagttagtggtcat
cggttcgaatccgatattacgtcca
1-2tRNA-Arg(tct)[42940,43016]
atctcgtagctcagttggatagagcaacagccttctaagctgtgggtcg
aaagttcgaatctttcacgggatacca

>KM190144.1 Escherichia phage Av-05, complete genome

1-1tRNA-Phe(gaa)c[4068,4143]
gtgacggtaactcagttggttagagtccttgctgaagactagtggtcac
aggttcgaatcctgtccgtcacacca

1-2tRNA-Leu(tag)c[4149,4225]

gggcgattgatggaattggtatacatgtcaggcttagaacctgaatttg
ggggttcgagtcctcatcgctacca

1-3tRNA-Pro(tgg)c[4474,4551]

ctgtccgtagcgcagcttgggtagcgcgggtcacttgggatgatcaggtc
gttggttcaaatccaaccggacagacca

1-4tRNA-Asn(gtt)c[4636,4726]

ggttctttgaccgagtggtcgtggtgacggcctgtaagccgttgggag
gaatctccccaccgaaggttcgaatccttcaggaaccgcca

1-5tRNA-Lys(ttt)c[4736,4812]

ggatctgtagccaaatggtttaaggcacttgacttttaatcgaggattg
ttagttcgaatctaaccagatccacca

1-6tRNA-Ser(tga)c[5035,5123]

ggaggctggggtgcatggtgcacaagctggttgaaccagctccgctgt
agagatatggtgacagttcgattctgtcagcctcctcca

1-7tRNA-Ser(gct)c[5202,5295]

ggaagattaaccctaatttgtaagggtctccctgctaaggagatagta
accagaaatgggtgtgccagtcaagctggcatcttctcca

1-8tRNA-Ser(gga)c[5317,5406]

ggagaagcaaatcgattggcgacgaaaccacattggaaatgtctgactg
gtaaaacggcttgagagttcgattctctccttccacca

1-9tRNA-Gln(ttg)c[5416,5491]

aggggattagcatagtgccctaatagcacgggcttgaccccgtagcgg
ttgttcgaatcaaccatcccctgcca

1-10tRNA-Gly(tcc)c[6493,6567]

gcatccatagttaattgggaaaactacagcctccaagctgaagtcgag
ggttcgataccctctggatgctcca

1-11tRNA-Tyr(gta)c[6717,6806]

gtgtcgtagaccgtagggtagcgggggagactgtaaatctcctgtctc
gaaagggactcgggtagttcgactctatcacggcacacca

1-12tRNA-Cys(gca)c[7241,7317]

gcacggtgccggaatttggttacggatctgtctgaaaacggatatatg
tcggttcaagtcgacaccgtgctcca

1-13tRNA-Thr(tgt)c[7779,7853]

gctcgtatagctcaacggtagagcacctgcctgttaagcaggggttgca
ggttcgaaacctgctgcgagcacca

1-14tRNA-Met(cat)c[9584,9659]

ggccccttagctcagtggttagagcaggtgactcataatcgcttggtcgc
tggttcaagtccagcaggggccacca

>KJ858521.1 Aeromonas phage pAh6-C, complete genome

1-1tRNA-Pro(cgg)[30212,30283]

ctgggatgggctaagtaagccatgcgcacgggtgcgttaggatctaggt
acaaatcctaggccccagacca

1-2tRNA-Thr(tgt)[30285,30360]

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gccagtttagcttagttggaagagcaaccgatttgaatcggtaggtcgt
aggttcgagccctacaactggcacca
>KM501444.1 Shigella phage pSs-1, complete genome
1-1tRNA-Arg(tct)c[73554,73629]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
aggttcgalccctactgcctcgacca
1-2tRNA-Asn(gtt)c[73634,73708]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattggtata
ggttcgaatcctatcacgtccgcca
1-3tRNA-Tyr(gta)c[73713,73799]
ggggagtatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactcccacca
1-4tRNA-Met(cat)c[73809,73883]
ggccctgtagctggaaggttcaagcaagcgactcataatgccagatggt
ggttcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[73885,73960]
gctgatttagctcagtaggtagagcaactcacttgaatgagaaggtcgg
cggttcgaltccgtcaatcagcacca
1-6tRNA-Ser(tga)c[73966,74055]
ggaggcgtggcagagtgtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca
1-7tRNA-Pro(tgg)c[74057,74131]
ctccgtgtagctcagtttgtagagcgctgattgggatcaggagggtcc
aaggttcaaatccttgtatggagac
1-8tRNA-Gly(tcc)c[74142,74215]
gcggatatcgataatggcattacctcagactccaatctgatgatgtga
gttcgattctcattatccgtcca
1-9tRNA-Leu(taa)c[74221,74307]
gcgagaatggtaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttgggttcgagtccttctcgcacca
1-10tRNA-Gln(ttg)c[74308,74381]
tgggaattagccaagttgtaaggcactggatttgattccaggatgcaa
aggttcgagtcctttattcccagc
>AP014629.1 Edwardsiella phage GF-2 DNA, complete sequence
1-1tRNA-Asn(gtt)[39837,39912]
ggtggggaagcacatacggatgtcggcaggctgttaacctgatggtata
gggttcgagtcctaaccaccgcca
1-2tRNA-Thr(tgt)[39914,39988]
gccggaatagttcagtggcagaacggatgccttgaagcatcgcgtcaga
ggttcgattcctttctcgcacca
>KJ000058.2 Salmonella phage STP4-a, complete genome
1-1tRNA-Arg(tct)c[61904,61980]
cgaggcatagctcaatagtagagcaacggcttctaaaccgtaggttg
aaggttagaatccttctgtctcgacca

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1-2tRNA-Asn(gtt)c[61987,62058]
tggatcatcgataaaggttattacgggagctgtaactccttatctt
ggttcgagccaagtgcgccag
1-3tRNA-Gln(ttg)c[62367,62442]
tgggaattagccaagttggaaggcaccgattttgattccgggatgcac
tggttcgagcccagattcccagcca
1-4tRNA-Met(cat)c[62449,62524]
ggccccttagctcagtggttagagcaggcgactcataatcgcttggtcgc
tggttcaagtcagcaggggccacca

>LN610573.1 *Pseudomonas* phage vB_PaeM_PA01_Ab03, complete genome

1-1tRNA-Asn(gtt)[25015,25091]
tccgttcggtccctcaaggcgaggagcttgactgttaatacaagacgtgc
ctggatcgattccaggagcggagcca
1-2tRNA-Tyr(gta)[25149,25236]
ggaggggtggcagagcggtttaatgcaccggcctgtaaatccggcgtccg
accgagcatcgctggttcaaatccagccccctccacca
1-3tRNA-Gln(ttg)[25438,25513]
aggcgtgtggcgaagggttaacgcactggactttgactccagcattcga
gggttcgaatccctccacgtctgcca

>KJ019069.1 *Synechococcus* phage ACG-2014j isolate Syn7803US103, complete genome

1-1tRNA-Met(cat)[17049,17124]
tgcttccttagcaatctggtgaatgcagcaaaactcataattgcctaagg
agagttcgatcctctcaggaagcatc
1-2tRNA-Leu(taa)[17125,17211]
tgcgagtatggcggaatcggtagacgcaccagacttaaaatctgttgagc
attatgctcgtgggagttcaagtctccctactcgcat
1-3tRNA-Thr(tgt)[18029,18101]
gccaaactagctcagtggttagagcaggcctttgtaaagctcaggtcgca
ggttcaaatcctgtgttggtc
1-4tRNA-Asn(gtt)[18106,18177]
tcctcttagctcagcggtagagcgggtgactgttaatacaattgtccct
ggttcgatcccaggaaggggag
1-5tRNA-Arg(tct)[158077,158153]
gactcagtagctcagttggatagagcaactgccttctaagcagtcggtcg
ttggttcgagccaacctgagtcgcca
1-6tRNA-Leu(tag)[158154,158236]
gtcggatggcggaattggtagacgcgccagggttaggttctggtgtctt
atgacgtggaggttcaagtcctcttaccgacac
1-7tRNA-Val(tac)[158239,158310]
gctcgaatagctcagaggtagacacctcctttacacggagattgtcggg
ggttcgatcccctcttcgagca
1-8tRNA-Gly(tcc)[161447,161518]
gcgggtgtagctcagtggttagagcgtcagtttccaaactgaatgtcgtc
ggttcaagtcgatctcccgt

>KJ019156.1 Synechococcus phage ACG-2014e isolate Syn7803C2, complete genome

1-1tRNA-Met(cat)[17776,17848]
gcttccttagcaatctggtgaatgcagcaaaactcataattgcctaagga
gagttcgatcctctcaggaagca
1-2tRNA-Leu(taa)[17851,17937]
tgcgagtggtggcgaatcggtagacgcaccagactaaaaatctgttgagc
attatgctcgtgggagttcaagtcctcctactcgcat
1-3tRNA-Asp(gtc)[18754,18829]
tggggttagctcagttggttagagcgctgtcacgcaggaagtc
gtgggtcaagtcctcatcaatccgt
1-4tRNA-Thr(tgt)[18832,18904]
gccaaactagctcagtggttagagcagggtttgtaaagctcaggtcgca
ggttcaaatcctgtgtttggctc
1-5tRNA-Asn(gtt)[18909,18980]
tcctccttagctcagcggttagagcggtgactgttaataatgttcct
ggttcgatcccaggagggggag
1-6tRNA-Arg(tct)[154258,154334]
gactcagtagctcagttggatagagcaactgccttctaagcagtcggtcg
ttggttcgagtcacactgagtcgcca
1-7tRNA-Leu(tag)[154335,154417]
gtcggtagtggcgaattggtagacgcgcaggtttaggttctggtgtctt
atgacgtggaggttcaagtcctcttaccgacac
1-8tRNA-Val(tac)[154420,154491]
gctcgaatagctcagaggtagagcacctcctttacacggagattgtcggg
ggttcgatcccctcttcgagca
1-9tRNA-Gly(tcc)[156950,157021]
gcgggtgtagctcagtggttagagcgtcagtttccaaactgaatgtcgtc
ggttcaagtcgatctcccgt

>KJ019071.1 Synechococcus phage ACG-2014g isolate Syn7803US105, complete genome

1-1tRNA-Val(tac)[13160,13233]
tgggcgaataactcagcggtagagtgtctcctttacacggaggttcgga
gggttcgatcccctcttcgccc
1-2tRNA-Leu(taa)[18087,18173]
tgggagtggtggcgaatcggtagacgcaccagactaaaaatctgttgagc
aatatgctcgtgagagttcaagtcctctactcctat
1-3tRNA-Thr(tgt)[18387,18459]
gcctccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18463,18536]
ttcctccttagctcagcggttagagcggtgactgttaataatgttccc
tgggttcgatcccaggagggggagt
1-5tRNA-Arg(tct)[157432,157507]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggtc
gcaggttcgagtcctgcctgacccgt

>KJ019136.1 Synechococcus phage ACG-2014d isolate Syn7803C102, complete genome

1-tRNA-Val(tac)[13624,13697]

tgggtgattaactcagtggttagagtgactgtttacacgcagtaggtcac

tggttcaaatccagttatcccat

1-2tRNA-Arg(tct)[153716,153790]

tgggcaagtagctcagtggttagagcatcgcaattctaatacggttggtcg

ggggttcaaatccctccttgcccgt

1-3tRNA-Asn(gtt)[153811,153884]

ttcccaagtagctcagtggcagagccgccgactgttaatcggctggtcgc

tggttcaaatccagccttgggagt

>KJ019059.1 Synechococcus phage ACG-2014f isolate Syn7803C90, complete genome

1-tRNA-Arg(tct)[132746,132819]

gggtcagtagctcagatggatagagcaattcacttctaataattggtcg

ggggttcgagtcctcctgacccg

1-2tRNA-Asn(gtt)[133033,133104]

tcacaaatagctcagcggtagagtcggcgactgttaatcgcttgcctt

ggttcgaatccagttgtggag

>KM236237.1 Citrobacter phage Miller, complete genome

1-tRNA-Met(cat)[49270,49346]

ggcccttttagctcaattggttagagcgaacccctcataagggtgtggttc

cgggtcgagtcacgaaggggccacca

>KP797973.1 Salmonella phage Det7, complete genome

1-tRNA-Ser(gct)c[132125,132213]

ggaaggttggccgagaggtttaagggactcgactgtaatcgagtggggc

tttagcccccgaaggttcgaatccttcacctccgcca

1-2tRNA-Tyr(gta)c[132486,132569]

gtgagtgtggcagagcggtcgaatgcaggagactgtaaatctccccgtaa

cagcgcgggtggttcgaatccatccactcacacca

1-3tRNA-Asn(gtt)c[132827,132902]

gacgatgtagttcagtcggtagaacggcggtctgttaaaccgtatgtcgc

aggttcaagtcctgccatcgtcgcca

1-4tRNA-Met(cat)c[133074,133150]

ggctcgttagctcagtcggtagagcagtgaaactcataattcattggtca

ttggttcaaaccatcaggatcacca

>KJ019134.1 Synechococcus phage ACG-2014b isolate Syn7803C100, complete genome

1-tRNA-Thr(tgt)[13153,13225]

gcctccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca

agttcaaatctgtcagaggctc

1-2tRNA-Asn(gtt)[13230,13302]

tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc

tggttcgagtcagggtggaggag

1-3tRNA-Val(tac)[13305,13376]

ggggaataactcagcggtagagtcctcctttacacggagattgtcggg

ggttcgatcccctcttcgcca

1-4tRNA-Leu(taa)[18740,18826]
tgggagtggtgcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtcctccctcctat
1-5tRNA-Arg(tct)[155502,155576]
tgggtcagtagctcagcggatagacatcgacttctaatacggtgtcgcg
caggttcgatccctgcctgacccgt

>KJ019082.1 Synechococcus phage ACG-2014i isolate Syn7803US120, complete genome

1-1tRNA-Met(cat)[17929,18001]
gttccttagcaatctggtgaatgcagcaaaactcataattgcctaaggt
gagttcgatcctcacaggaagca
1-2tRNA-Leu(taa)[18005,18088]
gcgagtatggcggaatcggtagacgcaccagacttaaaatctgttgagag
caatctcgtgggagttcaagtcctcctactcgca
1-3tRNA-Asp(gtc)[18907,18982]
tggggttagctcagttggttagagcgctgcctgtcacgcaggaagtc
gtgggttcaagtcctcaatcccgct
1-4tRNA-Thr(tgt)[18985,19057]
gcctccgtagctcagtggttagagcagggctttgttaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-5tRNA-Asn(gtt)[19062,19133]
tcctccttagctcagcggtagagcgggtgactgtaataatgtccct
ggttcgatcccaggggggag
1-6tRNA-Arg(tct)[153173,153249]
gggtcagtagctcagatggatagagcaattcacttctaataatggtcgcg
ggggttcgagtcctcctgacccgcca
1-7tRNA-Leu(tag)[153250,153333]
gtcggtagtgcggaattggtagacgcgccaggttaggttctggtgtctt
tatgacgtggaggttcaagtcctcttaccgacac
1-8tRNA-Val(tac)[153336,153407]
gctcgaatagctcagaggtagagcagcactttacacggtgaatgtcggg
ggttcgatcccctcttcagca
1-9tRNA-Gly(tcc)[155856,155927]
gcgggttagctcagtggttagagcgtcagtttccaaactgaatgtcgtc
ggttcaagtcgatctcccgct

>KF381361.1 Sinorhizobium phage phiM12, complete genome

1-1tRNA-Thr(tgt)c[81122,81205]
gccggtatagccaagcggcgaaggcacctgattgtaatcaggtattca
aacgtcggcagttcgaatctgtctaccggctcca
1-2tRNA-Gln(ttg)c[81206,81279]
ttgcccttagttcagttggtagaacgtcgaattttggttcgaaggtccg
tggttcgaatccacgagggaagc
1-3tRNA-His(gtg)[86152,86228]
tcatggatggtgttagtctggttagcacgcggatgtggaccgcaagca
taggttcaaatcctattccatggacca

1-4tRNA-Leu(caa)[94993,95080]
tgggagataaaggaaactfaccagttcaattctggtttctccaagagtaa
tcgagtggttaggttcgagtcctacctccccagcca
1-5tRNA-Met(cat)[95631,95707]
tgcgggtagtagcagtggttagctcgtctgcctcataagcagaaggtca
tcagttcgaatctgatccccgcaacca
1-6tRNA-Cys(gca)[96394,96468]
gacgagaaggcagaagggttatgcgcggcgttgcaaccgccgtatgtgc
ggttcaagtcggctctcgtctcca
1-7tRNA-Lys(ttt)[101026,101102]
gcgcgcttaactcagttggttagagtggcgacctttaagtcgtttgtcc
ccggttcgagtcgggagcgcgcacca

>KJ801817.1 Enterococcus phage ECP3, complete genome

1-1tRNA-Asp(gtc)[100086,100161]
tggcagtataggcagaggtgtcccaacacgtgtcagcgtggaacaca
cgggttcgagtccttactgtcgtc
1-2tRNA-Trp(cca)[100412,100485]
tagtcggttagtgaactggaacacgttggtctccaaaaccaataatag
gggttcaaatcctctaccgattgt
1-3tRNA-Arg(tct)[100969,101044]
tgtaggttagctcaatcgatagagcatccgccttctaagcggacggtt
gggggttcgattccctccatctacgt
1-5tRNA-Leu(tag)[101766,101850]
gcagaagtgatggaactgtagacaacggtgtcttagaaacatcggctcg
taatggacgtgtgggttcgactccgccttctgca
1-6tRNA-Met(cat)[102473,102546]
ggacgttagctcagttggtcagagcattcggtcctaaccgaacggtcg
caggttcgagacctgcaatgtcca

>KC295538.1 Escherichia phage PBECO 4, complete genome

1-1tRNA-Thr(tgt)c[207837,207910]
gccgacttagctcagtaggtagagcaatccccttgaagggaaggtcac
cagttcgattccggtagtcggcac
1-2tRNA-Asn(gtt)c[208949,209021]
gactctgtagttcagcggtagaacgtcaaactgttaatttggtgtcggg
ggttcgaatccctccagagtcgc
1-3tRNA-Met(cat)c[209026,209104]
ggccattagctcacgcgtggttagagcaaacgactcataatcgttcggt
acggtgttcgactaccgatggcccacca
1-4tRNA-Ser(gct)c[209109,209198]
agtgagttggatgagtggttgaaatcactaccctgctaaggtagcatatg
cgaaagcgtatcgtgggttcgaatcccacactcactgccca
1-5tRNA-Ser(tga)c[210921,211010]
ggtgaagtggcagagcggtttaatgcaacggtcttgaaaaccgtcgaggg
cgaaagtcctccgtgagttcaaatctcaccttcaccgccca

1-6tRNA-Gly(tcc)c[212040,212112]
 gcaggtaaagtgttgatggcggcatagctactccgattctgggggtgg
 ggttcaaattccccatacctgctc
 >KJ676859.1 Bacillus phage JBP901, complete genome
 1-1tRNA-Met(cat)c[156041,156115]
 taggattatagctcagtggtagagcgtgggtctcataagccaaggctcga
 tggttcgatcccatctattcctatc
 1-2tRNA-Leu(tag)c[156207,156291]
 gtcgaagtgttggaactggtatacatgcggcacttagaatgccgtgcctt
 cgggattgtgggttcgactcccacttcgacacca
 1-3tRNA-Ile(gat)c[156300,156376]
 actagtgtagctcagtcagtagagcagtgcttgataaggcattggctc
 taggttcaaattcctaccactagtacca
 1-4tRNA-Leu(taa)c[156383,156469]
 atcggaatgttggaattggtagacataacggacttaaaatccgttgctcg
 tagagcgtggcgggttcgagtcctccctccgatacca
 1-5tRNA-Tyr(gta)c[156473,156555]
 gggcgtgcaatcattggagagataagctgactglaaatcagtggtcattg
 actgtggaggttcgaatccttcattcccacca
 1-6tRNA-Phe(gaa)c[156562,156636]
 ggatagatagctgagatggattagcgaaggattgaaactccttagaggt
 ggatcgttaccactctgtccacca
 1-7tRNA-Pro(tgg)c[156731,156802]
 gtagatgtaggctagagtcagtcactccgttggggcggaggtcacgca
 ggttcgatccctgccatctgca
 1-8tRNA-His(gtg)c[156909,156982]
 cagtggtggtgaagtggcttaacacggacgactgtggatcggtcattag
 caggttcgaatcctgtcatgtga
 1-9tRNA-Gln(ttg)c[157060,157135]
 ttctgggtggacaaactggtaaagtcactaggctttgaccctaggtttt
 ggaggttcgacccttcaccgaagt
 1-10tRNA-Ser(tga)c[157217,157306]
 cggggaataactcaagtggataaaagaggtagtcttgaaaactactaggc
 gtataaaagcgtgcgggggttcgaatccctcttctcctcggc
 1-11tRNA-Arg(tct)c[157312,157387]
 taccctttagccaagtggactaaggcagcgggcttctatcccgaagatc
 gtgggttcaaattcctacaggggtgt
 1-12tRNA-Ile(tat)c[157507,157580]
 atccctttagccaagcgttaaggcagtaggattatgtcctgcgtatcgg
 gagttcgatcctccaaggggcgc
 1-13tRNA-Asp(gtc)c[157582,157655]
 tggggataatagtgtagaggttaacacgcacggctgtctaccgtgaagcac
 ggggttcgaatccggttatcctcgt
 1-14tRNA-Thr(tgt)c[157743,157819]

gccttcttagctcagttggtagagcgactgccttgtaagcagtaggtcg
tgggttcgaatcctacagtcggcacca
1-15tRNA-Glu(ttc)c[158378,158454]
gtcgcattggtgaaattggtaacacactcggctttctaccgagcattc
gcaggttcgaatcctgtatcgatatc
1-16tRNA-Asp(gtc)c[158462,158535]
ggctcgttagtttaacggtaaaatacatgactgtctatcatgggtcacgg
gttcaactcccgtacgggtcgcca
1-17tRNA-Gly(tcc)c[158540,158614]
ggggcattggatatattggctattattcttggctccaaccaagcgaggtc
ggttcgattccgacatgtccctcca
1-18tRNA-Asn(gtt)c[158618,158693]
gtgctttagctcagtcggttagagctgggtggctgtaaccactgtgtcgt
aggttcgattcctacctagcacgcca
1-19tRNA-Cys(gca)c[158739,158812]
gagggtgtaccgaagcggctcaacggcacagattgcaaccctgttgttcg
tgggttcaaataccaccatcctct
1-20tRNA-Ser(gct)c[158819,158907]
ggaagggtactcaagttgggaagaggtcaacctgctaagttgatagtac
ctgttaaaggtagcgagggttcgaatccctttcctcct

>JN225449.1 Enterobacteriophage UAB_Phi87, complete genome

1-1tRNA-Leu(taa)c[45,123]
gtccattactccaattggcagagaggccagactaaaatctgtgttatg
tatcggttcgaatccgatatggagtacca
1-2tRNA-Gln(ttg)c[126,201]
aggggattagtttacaaggttaaaacctcggctttgaaatcgaagaagt
tggttcaattccaacatcccccgcca
1-3tRNA-Arg(acg)c[1025,1100]
gcaggattagttcaaattggatagagcaacagtctacgaagctgtaatatg
gggttcgaatcccttatcctgcgcca
1-4tRNA-Leu(caa)c[1106,1183]
gttcagtatcccaattggcagaggatgcaagctcaaacctgtactagt
cacggttcgaatccgtcttggaaacacca
1-5tRNA-Val(tac)c[1185,1259]
actcgttagtttatatggtaaaacatcaccttacaagatgaagaaaaa
ggttcaagtccttttagtgagtacca
1-6tRNA-Thr(tgt)c[1355,1430]
gtcctatcgtataattggctattacggttgccttgaagcaacttatca
gggttcgaatccttgtgggagcacca
1-7tRNA-Gly(tcc)c[1438,1512]
gcatccatagtttaaacgggaaaattacagtcttccaaactgaggttgag
ggttcgattccctctggatgtcca
1-8tRNA-Ala(tgc)c[1519,1594]
ggggtcatagtttatatggttaaaattcgagtttgcgaacttgggaact

gagttcaattctcagtactccacca
1-9tRNA-Lys(ctt)c[1601,1676]
gcaggtgtagcaaatgggtatgcggctgactcttaatcagtaagacgat
gggttcaattccctccacctgtacca
1-10tRNA-Leu(tag)c[1684,1761]
gggagattgacggaattggtaaacctaccatccttagaagttggtgtt
gagggttcgaatccctgtctctacca
1-11tRNA-Ser(tga)c[2018,2107]
ggtaggtagcggctaattggtagccaaactgtcttgaacagttgccact
gtagagatacggtaggggttcgactccttacttaccgcc
1-12tRNA-Arg(tct)c[2346,2422]
gcacccttagttcaattggatagagcaacggtcttctaaatcgtagtta
cagggttcgaatcctgtagggtgtgcca
1-13tRNA-Ile(gat)c[2759,2834]
gctggtatagttaagaaggtataacactcccctgataagggaacatcgg
tggttcgattccacctaccagtacca
1-14tRNA-Met(cat)c[2836,2912]
ggttcagtcgcagataaggtaatgcaagggtctcataagccctatgaatg
tgggttcgattcccatctgaacctcca
1-15tRNA-Lys(ttt)c[2917,2992]
ggaagtgtacagaatgggtgatgcggcagacttttaatctgacaggcgt
gggttcgaatccctccacttctacca
1-16tRNA-Asp(gtc)c[3451,3527]
ggttatgtagttaactggttaaaatactcccctgtcacgggagatgatg
agggttcaaatcccttcgtaaccgcca
1-17tRNA-Tyr(gta)c[3534,3621]
gtgtcgttatcccgtataggtagcgggtgggactgtaaatccctgtca
ttgagactcggtaggttcgactcctacacggcacacca
1-18tRNA-Asn(gtt)c[3631,3707]
ggttaggaagcacataaggtatgtcggtcgcctgttaagcgaatggcac
agggttcgaatccctgactaaccgcca
1-19tRNA-Met(cat)c[3785,3861]
tgcgggtatagagaaggcgctctcacatgtctcattagcatggtatcgg
cagggttcgactcctgcacccgcctcca
1-20tRNA-Glu(ttc)c[3953,4030]
gttcagtagacaaaacggtaaaagtcaccactcttcaaagtggaatatt
gagggttcaaatcccttctggaacgcca
1-21tRNA-Pro(tgg)c[4038,4114]
ctctgttagctcagcttggtagagcgttcggttggggcggttaaggccg
gaggttcaagtccccaacagagacca
1-22tRNA-Cys(gca)c[8591,85986]
gaatccgtgacagaaatggctatgtgcctgtctgcaaacagggttataa
gggttcgagtccttcggtattctcca
1-23tRNA-Ser(gct)c[85991,86083]

ggaagattaaccctaaaaggtaaggagcagtttgctaaactgccagtag
ctgagaaatcggtgtaccagttcaagctcgtatcttctcca
1-24tRNA-Phe(gaa)c[86836,86911]
agtccaagtagcttatatggttaaagcgctgtctgaaaaacatgagaag
agggttcaaatcccactggactacca
1-25tRNA-His(gtg)c[86918,86993]
gtggccttatcataaatggtaatgacccatgctgtgaacatggtctatac
gggttcaaatcccgtaggtcacccca
1-26tRNA-Gln(ctg)c[87025,87100]
agcggtagcataactggcaatgcagcagctctgaagctgcctatta
agggttcaaatccttatgccgtgccca
1-27tRNA-Leu(taa)c[87106,87184]
gtccattactccaattggcagagaggccagactaaaatctgtgttatg
tatcggttcgaatccgatatggagtacca
1-28tRNA-Gln(ttg)c[87187,87262]
aggggattagtttacaaggttaaaacctcggctttgaaatcgaagaagt
tggttcaattccaacatcccccgcca

>KP010413.1 Salmonella phage vB_SPuM_SP116, complete genome

1-1tRNA-Pro(tgg)[26880,26956]
ctctgttagctcagcttggtagagcgttcggttggggcggttaaggccg
gaggttcaagtcctccaacagagacca
1-2tRNA-Glu(ttc)[26964,27041]
gttccagtagacaaaatggtatagtcaccactcttcaaagtgatattt
gagggttcaaatcccttctggaacgcca
1-3tRNA-Met(cat)[27133,27209]
tgcgggtatagagaaggcgctctcacatgtctcattagcatggtatcgg
caggttcgactcctgcacccgcctcca
1-4tRNA-Asn(gti)[27288,27364]
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agggttcgaatccctgactaaccgcca
1-5tRNA-Tyr(gta)[27434,27521]
gtgtcggtatcccgtagatggtagcgggtgggactgtaaatccctgtca
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1-6tRNA-Asp(gtc)[27527,27604]
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gtgagttcaagtctcatcgtagccgcca
1-7tRNA-Met(cat)[27841,27917]
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tgggttcgaatcccatctgaacctcca
1-8tRNA-Ile(gat)[27920,27994]
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gggttcgataccctcacctacaacca
1-9tRNA-Arg(tct)[28331,28407]
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caggttcgaatcctgtaggggtgccca
1-10tRNA-Ser(tga)[28646,28735]
ggtaggtagcggctaattgtagccaaacagctctgaaaactgtgccact
gtagagatacggtaggggtcgactccttactaccgcc
1-11tRNA-Leu(tag)[28988,29064]
gcacctatagcccaactgtagaggcagcagacttagaatctgctcagtg
tgagttcgaatctctctaggtgtacca
1-12tRNA-Lys(ctt)[29072,29147]
gcagggtagcaaaatgggtatgcggctgactcttaatcagtaagacgat
gggttcaattccctccacctgtacca
1-13tRNA-Ala(tgc)[29154,29229]
ggggatgtagtttacatgggtaaaacataagtttgcaaacttaagtaca
gggttcaattccctgcttctccacca
1-14tRNA-Gly(tcc)[29236,29310]
gcatccatagtttaaacgggaaaattacagtcttccaaactgaggttgag
ggttcgattccctctggatgctcca
1-15tRNA-Thr(tgt)[29318,29394]
gctgcttctgataattggctattacacatccattgtaaggatggaaatg
caggttcgagtcctgtgagcagcacca
1-16tRNA-Val(tac)[29490,29564]
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ggttcaagtccttagtgagtacca
1-17tRNA-Leu(caa)[29566,29643]
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gacggttcgaatccgtcttgaacacca
1-18tRNA-Arg(acg)[29758,29833]
gcaggattagttcaaatggatagagcagcagctctacgaagctgtaatag
gggttcgaatcccttatcctgcgcca
1-19tRNA-Gln(ttg)[30419,30494]
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tgggtcaattccaacatcccccgcca
1-20tRNA-Leu(taa)[30497,30575]
gtccattactccaattggcagagaggccagactaaaatctgtgttatg
tatcggttcgaatccgatatggagtacca
1-21tRNA-Gln(ctg)[30581,30656]
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aggttcaaatccttatgccgctgccca
1-22tRNA-His(gtg)[30688,30763]
gtggccttatcataaatggtaatgacctatgctgtgaacatgggtctatac
gggttcaaatcccgtaggtcacccca
1-23tRNA-Phe(gaa)[30770,30845]
agtccaagtagcttatatgggttaaagcgctgtctgaaaaacatgagaag
agggttcaaatcccactggactacca
1-24tRNA-Ser(gct)[31598,31690]

ggaagattaaccctaaaaggtaaggagcagtttgctaaactgccagtag
ctgagaaatcgggtgtaccagttcaagctcggatcttctcca
1-25tRNA-Cys(gca)[31695,31770]
gaatccgtgacagaaatggctatgtgcctgtctgcaaacagggttataa
gggttcgagtccttcggattctcca

>KP037007.1 *Erwinia* phage phiEa2809, complete genome

1-1tRNA-Lys(ttt)[147462,147537]
ttcgtgatagctcagttggtagagcagcctcctttaagaggcaggtcac
tggttcaagtcagttcacggcacca

>JX560968.1 *Escherichia* phage EC6, complete genome

1-1tRNA-Pro(tgg)[11934,12010]
ctctgttagctcagattggtagagcgttcggttggggcggttaagccg
gaggttcaagtcctccaacagagacca
1-2tRNA-Glu(ttc)[12018,12095]
gttcagtagacaaaatggtatgtcaccactcttcaaagtgatattct
gagggttcaaatcccttctggaacgccca
1-3tRNA-Met(cat)[12181,12257]
cgcgggtatagagaaaggcgctctcacatgtctcattagcatggaacgg
ttggttcgactccaacacccgcctcca
1-4tRNA-Asn(gtt)[12343,12419]
ggttaggaagcacataaggtatgtcgggtcgcttgaagcgaatggcac
agggttcgaatccctgactaaccgccca
1-5tRNA-Tyr(gta)[12428,12515]
gtgtcggtatcccgtagatggtagcgggtgggactgtaaatcccttgta
ttgagactcggtagggttcgactcctacacggcacacca
1-6tRNA-Asp(gtc)[12521,12597]
ggctatgtagttaactggagaaaatactcccctgtcacgggagatgatg
tgagttcaagtcctcatcgtagccgccca
1-7tRNA-Lys(ttt)[13024,13099]
ggaagtgtagcagaatgggtgatgcggcagacttttaactctgacaggcgat
gggttcgaatccctccacttctacca
1-8tRNA-Met(cat)[13104,13180]
ggttcagtcgcagataaggtaatgcaagggtctcataagccctatgaatg
tgggttcgaatcccatctgaacctcca
1-9tRNA-Ile(gat)[13183,13257]
tgtgggttagcataaatggtaatgcaaacggctgataaccgttagaagag
ggttcgataccctcacctacaacca
1-10tRNA-Ser(tga)[13827,13916]
ggtaggtagcggctaattggtagccaaactgtcttgaaaacagttgccact
gtagagatacggtaggggttcgactccttacttaccgcc
1-11tRNA-Leu(tag)[14170,14247]
gggagattgacggtaattggtaaacctatctcgcttagaacgagatgttt
gagggttcgaatcccttctctctacca
1-12tRNA-Lys(ctt)[14255,14330]

gcaggtgtagcaaaatggttatgcggctgactcttaacagtaagacgat
gggttcaattccctccacctgtacca

1-13tRNA-Ala(tgc)[14336,14411]

ggggcatagtttatatggttaaaattcgagtttgcaaacttggaact
gagttcaattctcagtgactccacca

1-14tRNA-Gly(tcc)[14418,14492]

gcatccatagtttaaacgggaaaattacagttccaaactgaggttgag
ggttcgattccctctggatgctcca

1-15tRNA-Thr(tgt)[14500,14576]

gctgctttcgataattggctattacacatccctgtaaggatggaaatg
caggttcgagtcctgtgagcagcacca

1-16tRNA-Val(tac)[14672,14746]

actcgcttagtttatatggtaaagcccatccttacaagttggtgaaaa
ggttcaagtccttagtgagtacca

1-17tRNA-Leu(caa)[14748,14825]

gttcagtatcccaattggcagaggatgaagctcaaacttgtagtagt
gacggttcgaatccgtcttggaacacca

1-18tRNA-Arg(acg)[14940,15015]

gcaggattagttcaaatggatagagcaacagctctacgaagctgtaatag
gggttcgaatcccttatacctgcgcca

1-19tRNA-Gln(ttg)[15839,15914]

aggggattagtttacaaggttaaaacctcggtcttgaaatcgaagaagt
tgggtcaattccaacatcccccgcca

1-20tRNA-Leu(taa)[15917,15995]

gtccattactccaattggcagagaggccagacttaaaatctgtgtatg
tatcggttcgaatccgatatggagtacca

1-21tRNA-Gln(ctg)[16001,16076]

agcggatagcataactggcaatgcagcagctctgaagctgtcttatta
aggttcaaatccttatgccgtgcca

1-22tRNA-His(gtg)[16108,16183]

gtggccttatcataaatggtaatgacccatgctgtgaacatggtctatac
gggttcaaatcccgtaggtcacccca

1-23tRNA-Phe(gaa)[16190,16265]

agtccaagtagcttatatggttaaagcgcgtgtctgaaaaacatgagaag
agggttcaaatccactggactacca

1-24tRNA-Ser(gct)[17018,17110]

ggaagattaaccctaaaaggtaaggagcagtttgctaaactgccagtag
ctgagaaatcggtgtaccagttcaagctggtatcttctcca

1-25tRNA-Cys(gca)[17115,17190]

gaatccgtgacagaaatggctatgtacctgtctgcaaaacaggtttataa
gggttcgagtccttcggattctcca

>KM236240.1 Citrobacter phage Moon, complete genome

1-1tRNA-Leu(taa)[70996,71080]

gcatcgatggtggaactggtatacacatggcacttaaatgccacgccgt

aaggattgaggttcaaaccctctcgatgcacca
1-2tRNA-Met(cat)c[71082,71158]
ggccctatagctcaattggttagagcaaccggctcataactggtaggtt
ctggttcaagtcagatgggtcacca
1-3tRNA-Thr(tgt)c[71197,71272]
gctgatttagcttaggttagagcaactcacttgaatgagaaggtcgg
cggttcgattccgtcaatcagcacca
1-4tRNA-Pro(tgg)c[71277,71353]
ctccgcatagctcagcttggttagagcgctggttgggaccaggaggtcg
aatgttcgagtcattctgtggagacca
1-5tRNA-Gly(tcc)c[71665,71739]
gcatccatcgatatgcgatattatgactggctccacccagtagatgag
agttcgattctctctggatgctcca
1-6tRNA-Met(cat)c[71892,71964]
tgcgggttaacttcagtggtagaatgacgggtcatatcccggttacgcga
tggttcgagtcctacacccgcca
1-7tRNA-His(gtg)c[72279,72354]
gtggccgtagttcagttggtagaactcgagattgtggttctcatagtc
ggattagaattccacaggtcacccca
1-8tRNA-Gln(ttg)c[72462,72536]
tgaatcgtagccaagctggttaaggcaataggtttgatcctatgatccct
ggttcgagtcaggcggttcagcca
1-9tRNA-Asn(gtt)c[72543,72618]
ggatgtatagctcagctggttagagcggtcgcccgttaagtattggtccg
cggttcgaatccgtgtacatccgcca

>KF925357.1 Escherichia phage HY01, complete genome

1-1tRNA-Arg(tct)c[68788,68863]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-Asn(gtt)c[68868,68942]
ggatgttagctcaatggcagagcgatcgctgtaagcgattggttata
ggttcgaatcctatcacgtccgcca
1-3tRNA-Tyr(gta)c[68947,69033]
ggggagtattccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[69043,69117]
ggccctgtagctggaaggttaagcaagcgactcataatcgccagatggt
ggttcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[69119,69194]
gctgatttagctcagtaggttagagcaactcacttgaatgagaaggtcgg
cggttcgattccgtcaatcagcacca
1-6tRNA-Ser(tga)c[69200,69289]
ggaggcgtggcagagtgtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcgaatcctatcgctccgcca

1-7tRNA-Gly(tcc)c[69951,70024]
 gcggatatcgtataatggcattacctcagactccaatctgatgatga
 gttcgattctcattatccgctcca
 1-8tRNA-Leu(taa)c[70030,70116]
 gcgagaatgggtcaaattggtaaaggcacagcacttaaatgctgcggaat
 gatttccttgggttcgagtccttctcgacca
 1-9tRNA-Gln(ttg)c[70117,70190]
 tgggaattagccaagttgtaaggcactggatttgattccaggatgcaa
 aggttcaagtcctttattcccagc
 >KJ081346.1 Bacillus phage BCP8-2, complete genome
 1-1tRNA-Met(cat)c[33452,33526]
 tacggttatagctcagtggttagagtggtgtcctaagcccaaggtcga
 tggttcaatcccatctaaccgtatc
 1-2tRNA-Leu(tag)c[33706,33791]
 gtcagagtgttgaattggtagacttggcagattagaatctgctgcct
 agtggcgtgagggttcaagtcctccttgacacca
 1-3tRNA-Ile(gat)c[33800,33876]
 actagttagctcagtcaggtagagcagtgcttgataaggcattggtca
 caggttcaaatcctgtcactagtagca
 1-4tRNA-Leu(taa)c[33947,34033]
 atcggaatgttgaattggtagacataacgcacttaaatgcgttgctcc
 ttggggcgtgagggttcgacttctcttccgatacca
 1-5tRNA-Tyr(gta)c[34037,34119]
 gggcgtgcaatcattggagagataagctgactgtaaatcagtggtcgttg
 actgtggaggttcgaatccttccattcccacca
 1-6tRNA-Phe(gaa)c[34126,34200]
 ggatagatagctgagatggattagcgaaggattgaaactccttagaggtt
 ggatcgttaccaactctgtccacca
 1-7tRNA-Pro(tgg)c[34298,34369]
 gtagatgtaggctagaggtcagtcactccgttggggcggaggtcacgca
 ggttcgatccctgccatctgca
 1-8tRNA-His(gtg)c[34477,34550]
 cagtggtggtgaagtggctaacacgaacgactgtggctcgtttattcg
 cagggtcgaatcctgtcatgctga
 1-9tRNA-Gln(ttg)c[34627,34703]
 tttcgggatggacaaactggtaaaagtcactaggctttgaccctaggtttt
 ggaggttcgaccccttctcccgaagtc
 1-10tRNA-Ser(tga)c[34778,34865]
 ggagggctactctaactggaagagacctgccttgaaagcagacgtaggg
 taaaaccgataggagttcagtcctcctgccctctcca
 1-11tRNA-Arg(tct)c[35009,35083]
 acctctatcgccaagcggatcaaggcaacgggcttctatcccgttaatcg
 ggagttcgaatctctctaggggtgc
 1-12tRNA-Glu(ttc)c[35086,35161]

tgctgcattgggtgaagcgggtctaacacactcggctttctaccgagcatac
gcaggttcgaatcctgtatgcgatat
1-13tRNA-Gly(tcc)c[35666,35741]
ggggcattcgtatagtggcttattatacctggctccaaccaggggaggt
ggttcgattaccacatgtccctcca
1-14tRNA-Thr(tgt)c[35747,35823]
gccttcttagctcagttggtagagcgactgccttgaagcagtaggtcg
tgcgttcgaatcgtacagtcggcacca
1-15tRNA-Asp(gtc)c[35836,35909]
ggctcgttagtttaacggtaaaatacatgactgtctatcatgggtcacgg
gttcaactcccgtacgggtcgcca
1-16tRNA-Asn(gtt)c[36104,36179]
gtgcctgtagctcagttggtagagcagaacctgttaaggttaagtcgt
aggttcgaacctaccaggtacgcca
1-17tRNA-Cys(gca)c[36225,36298]
gagggtgtaccgaagcgggtcaacggcacagattgcaacctgttgttca
ggagttcgaatctcctcatcctct
1-18tRNA-Ser(gct)c[36309,36396]
ggaaaggtactcaagtcgggaagagatcagtttgctaaactgatagtac
ctgtaaaggtagcaggggttcgagtccttcttcca

>JX181824.1 Salmonella phage SSE-121, complete genome

1-1tRNA-Thr(tgt)[28,102]
gtctcctaaagcataagtggcgatgcagcggccttgaagccgaagaagtg
ggttcgattcctactgggagcacca
1-2tRNA-Ile(gat)[109,184]
tcctcgttagctcaagttggtagagcagtcaccaagattcgggataagcac
aggttcgattcctgtacgaggagcca
1-3tRNA-Leu(taa)[973,1058]
gcaggtgtgggtggaatggagatacacaggagactaaaatctcccgtt
aaatgattacgagttcgagtcctcgtcacctgcacca
1-4tRNA-Arg(tct)[1066,1140]
cggggtgtagtctaaggataggcagcggcttctaaaccgctcaatgt
ggttcgaatccagccacctcgacca
1-5tRNA-Cys(gca)[1259,1332]
gcacggttgctggagtggaacagcttcggctgcaaaccgaatgtcagga
gttcgattcttctaccgtgtcca
1-6tRNA-Tyr(gta)[1985,2068]
ggctcattggcagaacggtgattgcagcggattgtaaatccgtgcccttc
ggggttcctggttcgaatccaggtgggccacca
1-7tRNA-Ile(gat)[2076,2151]
gggagtatagctcagtttagtagagcgtcgaccgataatcgagaggtcgc
aggagcaaagcctgctactcccacca
1-8tRNA-Gly(tcc)[2159,2232]
gcgtcattagtgttagcgggtccagcatccgtcctccaagtcgggtggca

tcggttcgaatccgatatgacgct
1-9tRNA-Glu(ttc)[2240,2316]
gtcctgttagacaaactggtaaagtcaccacccttcaaggtggggttg
cgggttcgatccccgcacaggacgcca
1-10tRNA-Gln(ttg)[2406,2482]
agggggttagcatagctggcctaalgcatcgggcttgaactcgacatcg
gaggttcgaatcctccacccctgcca
1-11tRNA-Ser(gga)[2596,2687]
ggtggaaatggtcgagcggtttaagacagcatcttgaaagggtcggccc
cttaacaggggtccgtaggtcaaactctactccaccgcca
1-12tRNA-Ser(gct)[2982,3074]
ggaagattaaccctaatacagtaaggatctcttgctaaagagacagta
gccccgaaaggggtgtgtcagttcaagtctgacatcttctcc
1-13tRNA-Ser(tga)[3075,3163]
ggagagcaggacgcatggtgcgtaatccggttgaacccggacccatcgt
agcgatacggtagacagttcgattctgttgctctctcca
1-14tRNA-Asn(gtt)[3316,3400]
gacgagttggcctagtggtgggcgacggcctgtaagccgtgagtgaaa
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1-15tRNA-Asp(gtc)[3408,3484]
ggggccgtggctgacaaggtaatggtccgcactgtctatcgggaaaatg
agggttcgatccccttcggcctcgcca
1-16tRNA-Pro(tgg)[3582,3659]
ctgttcgtagcgcagctctggtcagcgtgggtcccttggaaggatcaggtc
ggtggtcaaataccaccggacagacca
1-17tRNA-Arg(acg)[3847,3923]
gcgagcatagcttaattgaatagagcttcgtacatacgaaggcggaagatc
ggggtttgaatccctgtacttcacca
1-18tRNA-Ala(tgc)[3927,4005]
ggggaatgggtctgcttgagtggaacacctgcctgcaccgaggatatca
gaagagttcgaatctctattctccacca
1-19tRNA-Leu(tag)[4112,4188]
gggcgattgatggaattggtatacgtgccgtccttagaagtcggatttg
ggggttcgagtcctctgcgccacca
1-20tRNA-Val(tac)[4196,4270]
gcttccttagttcaatggtagaacgttgtctttacacggcaagcgtcgg
ggttcgattccatcaggaagtacca
1-21tRNA-Phe(gaa)[4278,4353]
gggggtgtaactcagttggtagagtcctgcctgaagagcagatggtcgg
tggttcgagtcacccggccccacca
1-22tRNA-Ala(ggc)[4360,4441]
tgcgtggtagtgaacggatatatagatcatgttggcctcataagccgaa
gattgcgggttcgactcccgtcacgcatcca
1-23tRNA-Met(cat)[144815,144891]

ggttctgtagcttagttggtagagcgcttccctcataaggaagaggtcg
caggttcaattcctgccagaactacca
1-24tRNA-Lys(ctt)[145584,145659]
ggggattaacacacggttagttagcgccctctaagccgaaggtcga
aggttcgaatcctcatgccccacca

>AB897757.1 Klebsiella phage K64-1 DNA, complete genome

1-1tRNA-Leu(taa)[177141,177228]
ggccgtatgtccaaattggtaaaggagacagactaaaatctgttggtga
tattcaccttctcgattcgagttcgagtcggtgctacca
1-2tRNA-Gly(tcc)[177595,177670]
gcggttatcgataaaggctattacctcggtttccaaaccgatgatgag
ggttcgacgtccctctaaccgtcca
1-3tRNA-Arg(tct)[178961,179034]
gtccccttagttcagttggatagaacaactgccttctaagcagtaggtca
ctggttcgagtcagtaggggata
1-4tRNA-Ser(gct)[179186,179274]
tagtgagttggatgagtggtgaaatcaccacctgctaagtggtgcatat
gcgaaagcgtatcgtgggtcgaatccacactcactgt
1-5tRNA-Ser(tga)[179335,179422]
ggaaggatggccgagtggttaaggcactggtcttgaaccagcaatcc
gaaagggttctagagttcaaatctctatcctccacca
1-6tRNA-Met(cat)[179541,179618]
ggccctttactctcaagtggttagagaatccgactcataatcggtaggct
ctgagttcgaatctcagaagggccacca
1-7tRNA-Asn(gtt)[180355,180428]
gactctgtagcacaatcggtggtgcgattgactgtaataatggttgg
ggattcgagttcctccagagtcgc

>JX181825.1 Salmonella phage STML-198, complete genome

1-1tRNA-Arg(tct)c[102970,103046]
cgaggcatagcttaatagtatagagcaacggtcttctaaccgtaggttg
aaggttagaatccttctgtctcgacca
1-2tRNA-Gln(ttg)c[103686,103761]
tgggaattagccaagttggttaaggcaccggttttgattccgggatgcac
tggttcgagcccagttatccagcca
1-3tRNA-Met(cat)c[103768,103843]
ggcccccttagctcagtggttagagcaggcgactcataatcgcttggtcgc
tggttcaagtcagcaggggccacca

>KM657822.1 Escherichia phage vB_EcoM-VpaE1, complete genome

1-1tRNA-Pro(tgg)[25483,25559]
ctctgttagctcagcttggttagagcggtccgtttggggcggttaaggccg
gaggttcaagtctccaacagagacca
1-2tRNA-Glu(ttc)[25567,25644]
gttcagtagacaaaatggtatagtcaccactcttcaaagtggtatatt
gagggttcaaatcccttctggaacgcca

1-3tRNA-Met(cat)[25736,25812]
tgcgggtatagagaaggcgctctcacatgtctcattagcatggtatcgg
caggttcgactcctgcacccgcctcca
1-4tRNA-Asn(gtt)[25898,25974]
ggttaggaagcacataaggtatgtcggtcgcctgttaagcgaatggcac
agggttcgaatccctgactaaccgcca
1-5tRNA-Tyr(gta)[25984,26071]
gtgtcggtatcccgtagatggtagcgggtgggactgtaaatcccttgta
ttgagactcggtagggttcgactcctacacggcacacca
1-6tRNA-Asp(gtc)[26077,26154]
ggttatgtagttaatctggtaaaatactcccctgtcacgggagatgat
gagggttcgaatcccttcgtaaccgcca
1-7tRNA-Lys(ttt)[26584,26659]
ggaagtgtagcagaatggtagcggcagacttttaatctgacaggcgat
gggttcgaatccctccacttctacca
1-8tRNA-Met(cat)[26664,26740]
ggttcagtcgcagataaggtaatgcagggtctcataagccctatgaatg
tgggttcgattcccatctgaacctcca
1-9tRNA-Ile(gat)[26743,26817]
tgtgggttagcataaatggtaatgcaaacggctgataaccgttagaagag
ggttcgataccctcacctacaacca
1-10tRNA-Arg(tct)[27067,27143]
gcacccttagttcaactggacagagcaaatgacttctaattcattgagtta
caggttcgaatcctgtagggtgtgcca
1-11tRNA-Ser(tga)[27382,27471]
ggtaggtagcggctaattggtagccaaactgtcttgaacagttgccact
gtagagatacggtaggggttcgactccttactaccgcc
1-12tRNA-Leu(tag)[27728,27805]
gggagattgacggtaattggtaaacctatctcgcttagaacgagatgtt
gaggggttcgaatcccttgtctcctacca
1-13tRNA-Lys(ctt)[27813,27888]
gcaggtgtagcaaaatggttatgcggctgactcttaatcagtaagacgat
gggttcaattccctccacctgtacca
1-14tRNA-Ala(tgc)[27895,27970]
ggggtcatagtttatatggttaaaatcgagtttgcaaacttggaact
gagttcaattctcagtgactccacca
1-15tRNA-Gly(tcc)[27977,28051]
gcatccatagtttaaacgggaaaattacagtcttccaaactgaggttgag
ggttcgattccctctggatgctcca
1-16tRNA-Thr(tgt)[28058,28134]
gctgctttcgataattggctattacacatccctgtaaggatggaaatg
caggttcgagtcctgtgagcagcacca
1-17tRNA-Val(tac)[28230,28304]
actcgcttagtttatggtaaaacatcacccctacaagatgaagaaaaa

ggttcaagtccttagtgagtacca
1-18tRNA-Leu(caa)[28306,28383]
gttccagatcccaattggcagaggatgcaagctcaaacctgtactagt
gacggttcgaatccgtcttggaaacacca
1-19tRNA-Gln(ttg)[28969,29044]
aggggattagtttacaaggttaaaacctcggctttgaaatcgaagaagt
tggttcaattccaacatcccccgcca
1-20tRNA-Leu(taa)[29047,29125]
gtccattactccaattggcagagaggccagactaaaatctgtgttatg
tatcggttcgaatccgatatggagtacca
1-21tRNA-Gln(ctg)[29131,29206]
agcggtagcataactggcaatgcaacagtctctgaagctgcctatta
aggttcaaactcttatgccgctgcca
1-22tRNA-His(gtg)[29238,29313]
gtggccttatcataaatggtaatgacctagctgtgaacatggctctatac
gggttcaaactccgtaggtcacccca
1-23tRNA-Phe(gaa)[29320,29395]
agtccaagtagcttatatggttaaagcgcgtgtctgaaaaacatgagaag
agggttcaaactccactggactacca
1-24tRNA-Ser(gct)[30148,30240]
ggaagattaaccctaaaaggttaaggagcagtttgctaaactgctagtag
ctgagaaatcggtgtaccagttcaagctgggtatcttctcca
1-25tRNA-Cys(gca)[30245,30320]
gaatccgtgacagaaatggatatgtgcctgtctgcaaaacaggtttataa
gggttcaagtccttcggattctcca

>HE956711.1 Yersinia phage phiD1 complete genome

1-1tRNA-Arg(tct)c[68808,68883]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctgggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-Asn(gtt)c[68888,68962]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattggttata
ggttcgaatcctatcacgtccgcca
1-3tRNA-Tyr(gta)c[68967,69053]
ggggagtatcccgtagaggtagcgggtggactgtaaattcattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[69066,69140]
ggccctgtagctggaaggttaagcaagcgactcataatcgccagatggt
ggttcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[69142,69217]
gctgatttagctcagtaggttaggcacctcacttgtaatgaggacgtcgg
cggttcgattccgtcaatcagcacca
1-6tRNA-Ser(tga)c[69224,69313]
ggaggcgtggcagagtggtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcaaactctatcgctccgcca

1-7tRNA-Pro(tgg)c[69315,69389]
ctccgtgtagctcagtttggtagagcgctgatttgggatcaggaggtcc
aaggttcaaatccttgatggagac
1-8tRNA-Gly(tcc)c[69400,69473]
gcggatatactataatggattacctcagactccaatctgatgatgtga
gttcgattctcattatccgtcca
1-9tRNA-Leu(taa)c[69479,69565]
gcgagaatggtaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgggttcgagtccttctcgacca

>KF208315.1 Yersinia phage PST, complete genome

1-1tRNA-Arg(tct)c[67617,67691]
gtcccgtggtgtaatggatagcatatccttctaagttgcggtcct
ggttcgatcccaggcgaggatacca
1-2tRNA-Tyr(gta)c[68409,68495]
ggggagttatcccgtagaggtagcgggtggactgtaaattcattgtcat
tgcgactcaggtggttcgactccatcactccccacca
1-3tRNA-Met(cat)c[68505,68581]
ggccctgtagctcaatggtagcagcagtcctcataagggaaaggta
ccagttcaaatctggtctgggtcacca
1-4tRNA-Thr(tgt)c[68583,68658]
gctgatttagctcagtaggtagagcacctcacttgtaatgaggatgtcgg
cggttcgattccgtcaatcagcacca
1-5tRNA-Ser(tga)c[68660,68748]
tggaggcgtggcagagtgtttaatgcaccggtcttgaaccggcagtc
gtccggcgactcataggtcaaactctatgcctccgt
1-6tRNA-Pro(tgg)c[68749,68823]
ctccgtgtagctcagtttggtagagcgtctgttgggagcagaatgtcg
caggttcaaatcctgcccgagac
1-7tRNA-Gly(tcc)c[68834,68907]
gcggatatactataatggattacctcagactccaatctgatgatgtga
gttcgattctcattatccgtcca
1-8tRNA-Leu(taa)c[68913,68999]
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gatttccttgggttcgagtccttctcgacca
1-9tRNA-Gln(ttg)c[69000,69073]
tgggaattagccaagttgtaaggcatagcactttgactgctagatgcaa
aggttcgagtcctttattccagc

>KM672662.1 Acinetobacter phage YMC13/03/R2096, complete genome

1-1tRNA-Tyr(gta)[16051,16136]
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aaagctgtctaggtcgaatcctagatcaccacca
1-2tRNA-Ile(gat)[16140,16214]
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ggttcgaaaccatcaggtactacca

1-3tRNA-Asn(gtt)[16244,16317]
tctagttagcacacggtagtagcagcagactgttaatctgttggtgtt
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1-4tRNA-Asp(gtc)[17058,17133]
ggctctgtagcatagtggttatgcgcctccctgtctaggagaaaaacgc
cagttcgagtcgtggtcagagtcgcca
1-5tRNA-Gln(ttg)[17138,17212]
tgtcgtatagtgtaatggtagcacagaagactttgactcttctagtta
ggttcgagtcctaattcgactacca
1-6tRNA-Ala(tgc)[17216,17287]
gggtcactagcacaaatggtagtagcagttgctttgcaagcatcaggttaag
ggttcgagtccttgtgtatcc
1-7tRNA-Glu(ttc)[17294,17368]
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1-8tRNA-Lys(ttt)[17371,17447]
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taggttcaaalcctatagtcctacca
1-9tRNA-His(gtg)[17454,17527]
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ggttcaaataccgaagtcacacca
1-10tRNA-Val(tac)[18226,18301]
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1-11tRNA-Ser(tga)[18303,18391]
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gatgagcagttgagagttcgattctttacccatcgcca
1-12tRNA-Gly(tcc)[18393,18466]
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gttcgaatccgaatagacgtcca
1-13tRNA-Pro(tgg)[18620,18696]
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taagttcaattcttactacagagacca
1-14tRNA-Leu(tag)[18784,18860]
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tgattcgagtcagactacctacca
1-15tRNA-Leu(taa)[18867,18942]
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cagttcgaatctgaataccctacca
1-16tRNA-Thr(tgt)[19336,19411]
gccgaattagctcagttggttagagcagcgacttgtaatgcgaaggtcgt
agactcggattctacattcggcacca
1-17tRNA-Met(cat)[19784,19858]
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>JX509734.1 Enterobacteria phage SfiI, complete genome
 1-tRNA-Asn(gtt)[35738,35812]
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 ggttcgagtcacgctgtcccgcca
 1-2tRNA-Thr(tgt)[35818,35893]
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>JN641803.1 Salmonella phage SPN3US, complete genome
 1-tRNA-Trp(cca)[1771,1846]
 gggggatggcgcaattggtagcgaccggctcctccaaaaccgaaggttcg
 aggttcgaaacctcgtgcccccgcca

>FN667789.1 Campylobacter phage CPt10, complete genome
 1-tRNA-Arg(tct)[112367,112443]
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 aaggttcgagtcctttcatcccgacca
 1-2tRNA-Tyr(gta)[112455,112540]
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>GU169904.1 Staphylococcus phage SA1, complete genome
 1-tRNA-Tyr(gta)[58449,58536]
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 1-2tRNA-Asp(gtc)[58542,58618]
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 agggttcaaatcccttcgtaaccgcca
 1-3tRNA-Lys(ttt)[59047,59122]
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 gggttcgaatccctccactctacca
 1-4tRNA-Met(cat)[59127,59203]
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 1-5tRNA-Ile(gat)[59206,59280]
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 ggttcgataccctcacctacaacca
 1-6tRNA-Arg(tct)[59617,59693]
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 caggttcgaatcctgtaggggtgtacca
 1-7tRNA-Ser(tga)[59932,60021]
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 1-8tRNA-Leu(tag)[60278,60355]
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1-9tRNA-Lys(ctt)[60363,60438]
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1-10tRNA-Ala(tgc)[60445,60520]
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gagttcaattctcagtactccacca
1-11tRNA-Gly(tcc)[60527,60601]
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ggttcgattccctctggatgctcca
1-12tRNA-Thr(tgt)[60609,60684]
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1-13tRNA-Val(tac)[60780,60854]
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ggttcaagtcctttagttagtacca
1-14tRNA-Leu(caa)[60856,60933]
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1-15tRNA-Arg(acg)[61048,61123]
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1-16tRNA-Gln(ttg)[61947,62022]
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1-17tRNA-Leu(taa)[62025,62103]
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1-18tRNA-Gln(ctg)[62109,62184]
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1-19tRNA-His(gtg)[62216,62291]
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1-20tRNA-Phe(gaa)[62298,62373]
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1-21tRNA-Ser(gct)[63126,63218]
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1-22tRNA-Cys(gca)[63223,63298]
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1-23tRNA-Pro(tgg)[146853,146929]
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gaggttcaagtctctccaacagagacca
 1–24tRNA–Glu(ttc)[146937,147014]
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 gagggttcaaatcccttctggaacgcca
 1–25tRNA–Met(cat)[147105,147181]
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 >FN667788.1 Campylobacter phage CP220, complete genome
 1–1tRNA–Arg(tct)[111946,112022]
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 aaggttcgagtccttcatcccgacca
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 ttggcactgcaggttcgagtcctgtgcttacacca
 >AP011113.1 Enterobacteria phage AR1 DNA, complete genome
 1–1tRNA–Arg(tct)c[68329,68404]
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 aggttcgalccctactgcctcgacca
 1–2tRNA–His(gtg)c[68409,68484]
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 1–3tRNA–Asn(gtt)c[68598,68672]
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 1–5tRNA–Met(cat)c[68777,68851]
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 gttcgatttcattatccgctcca
 1–9tRNA–Leu(taa)c[69764,69850]
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>LN881727.1 Escherichia phage slur16, complete genome
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    agtttcgaatcactccgtggagacca
    1-2tRNA-Met(cat)c[95151,95225]
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    ggttcaattccaccagggccacca
    1-3tRNA-Thr(tgt)c[95227,95302]
    gctgatgtagcacaattggtagtgaattgattgtaataataggttgc
    aggttcaagtcctgccatcagcacca
    1-5tRNA-Ser(tga)c[95506,95596]
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    1-6tRNA-Tyr(gta)c[95711,95797]
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    tacgactcgggtggttcgactccaccactccccacca
    1-7tRNA-Arg(tct)c[95802,95876]
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    ggttcgagtcagtacggggtgcca
>LN881736.1 Escherichia phage slur14, complete genome
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    1-2tRNA-His(gtg)c[12122,12197]
    gtggccgtagttcagttggtagaactcgagattgtattctcgtagtcatt
    gggttcgactcccatcggtcacccca
    1-3tRNA-Asn(gtt)c[12312,12386]
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    1-4tRNA-Tyr(gta)c[12391,12477]
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    1-5tRNA-Met(cat)c[12487,12561]
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    1-6tRNA-Thr(tgt)c[12563,12638]
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    cgggtcgattccgtcaatcagcacca
    1-7tRNA-Ser(tga)c[12645,12734]
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    1-8tRNA-Pro(tgg)c[12736,12810]
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1-10tRNA-Leu(taa)[12900,12986]
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>KT804923.1 Pseudomonas phage C11, complete genome
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1-2tRNA-Arg(tct)[22705,22780]
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1-3tRNA-Lys(ttt)[22790,22865]
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1-4tRNA-Leu(tag)[23140,23224]
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1-5tRNA-Ile(gat)[23435,23510]
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1-6tRNA-Asp(gtc)[23520,23598]
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1-7tRNA-Met(cat)[23699,23773]
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1-8tRNA-Cys(gca)[24055,24130]
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1-9tRNA-Asn(gtt)[24141,24218]
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1-10tRNA-Pro(tgg)[24281,24358]
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1-11tRNA-Gly(tcc)[24530,24605]
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1-13tRNA-Glu(ttc)[24694,24769]
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1-14tRNA-His(gtg)[24830,24904]
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1-15tRNA-Thr(tgt)[25091,25165]
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>AP014714.1 Edwardsiella phage PEi20 DNA, complete sequence

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ccggttcaagtcggatggggccacca
1-6tRNA-Leu(taa)c[78529,78617]
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>KT353109.1 Cronobacter phage PBES 02, complete genome

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1-2tRNA-Cys(gca)[50736,50812]
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1-3tRNA-Leu(caa)[50814,50890]
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1-4tRNA-Tyr(gta)[51485,51571]
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1-5tRNA-Ser(gga)[51579,51673]
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1-6tRNA-Asn(gtt)[51844,51919]
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1-13tRNA-Ser(gct)[53125,53211]
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1-14tRNA-Phe(gaa)[53299,53374]
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>KT239446.1 Klebsiella phage JD18, complete genome

1-1tRNA-Thr(tgt)c[57172,57247]
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1-2tRNA-Leu(taa)c[57348,57432]
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1-3tRNA-Arg(tct)c[57437,57513]
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1-4tRNA-Met(cat)c[58860,58936]
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1-5tRNA-Pro(tgg)c[60204,60280]
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1-6tRNA-Gly(tcc)c[60286,60360]

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1-11tRNA-Gln(ttg)c[60942,61016]
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ggttcgaatccagatagtcagcca
1-12tRNA-Met(cat)c[61023,61099]
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caggttcgagtcctgcctccgcctcca
1-13tRNA-Asp(gtc)c[61261,61336]
ggacctatagtttcagcgggtaaaatactgcctgtcacgcgagagtcac
ggattcgaattccgtaggtccgcca
1-14tRNA-Asn(gtt)c[61590,61674]
gggtcgttggctgagagggttaagcgacggactgttaatccgtgtcagaaa
tgactaggcaggttcgatacctgcacggcccgcca
1-15tRNA-Lys(ttt)c[61680,61756]
gggatactagctcagttggttagagcaccggacttttaatccgggtgtcc
gaagttcgagtcctcggtgtccacca
1-16tRNA-Tyr(gta)c[61763,61849]
ggggagttagaccgtaggggtagcgggacagactgtaaatctgttctca
aaaggctcgagtgttcgactccattactccccacca

>KT934943.1 Klebsiella phage vB_KpnM_KB57, complete genome

1-1tRNA-Phe(gaa)c[60892,60966]
gcaactttgacatagacggatgtgtgctggcctgaaaagccagatagtca
ggatcgttacctgaagttgcacca
1-2tRNA-Leu(tag)c[60973,61049]
gggcgattgatggaattggtatacgtgtcggatttagattccgaattttg
ggggttcgagtcctctgcgcccacca
1-3tRNA-Ala(tgc)c[61085,61160]
ggggttatagtttatttgataaaattacaggctgcacctttagaact
gagttcgattctcagtgactccacca
1-4tRNA-Arg(acg)c[61164,61236]
gtgggtgtcctgacggacaggcaacggtctacgaagccgttgatgtagg

ttcgagtccttccatccacacca
1-5tRNA-Pro(tgg)c[61243,61319]
ctccgtgtagctcaatagttagagcgctggttgggaccaggaggtg
agtgttcgagtcactctatggagacca
1-6tRNA-Asp(gtc)c[61464,61539]
ggggatatggattagcggcaacatactggcctgtcacgccggagtcac
gggttcgaatcccgttatcctcgcca
1-7tRNA-Asn(gtt)c[61547,61631]
gacgagctgggtcattggtagaacggcgactgttaatccgcgagcatta
gtctatgtaggtcaattcctacgtcgtcgcca
1-8tRNA-Lys(ttt)c[61692,61767]
gggtaggtagccgagcggccaggcattgccttttaagcgaagagacgat
gggttcaaatccctccctcccacca
1-9tRNA-Ser(tga)c[61848,61940]
ggaagatagggcgtagtgtacgcaaccagattgaaccctggcccatcg
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1-10tRNA-Ser(gct)c[62023,62116]
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gtccgaaaggggtgtgcgagttcaagtcttgcattctccgcca
1-11tRNA-Ser(gga)c[62278,62368]
gggtggaatggtcgagaggtttaagacagcaccttgaaagggttagggccc
ccaaaaggggtccgtaggttcgaatcctacttcaccgcca
1-12tRNA-His(gtg)c[62454,62529]
gtggccttaattcagttggtagaattcccgttgatccgggcagtc
gggttcaagtcccataggtcacccca
1-13tRNA-Gln(ttg)c[62590,62664]
aggagattagccaagcggttacggcactggtcttgatatcagcatcgg
ggttcgaatccaccatctcctgcca
1-14tRNA-Trp(cca)c[62779,62855]
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tgggttcgaatcccagggtccctgcca
1-16tRNA-Glu(ttc)c[63069,63144]
gtcctatcggctaaatggacaggccgtcagacttcaatctggaaatcc
gagttcgatcctcgggtgggagtgcca
1-17tRNA-Ile(gat)c[63297,63371]
gggggtatagttcagcggtagaacgctcgcataatcgagaggtctct
ggttcgatcccagatactcccacca
1-18tRNA-Tyr(gta)c[63378,63464]
gcgtcgttagaccgtagggtagcgggacagactgtaaatctgttgctca
aaaggctcgggtagttcgactctatcacggcgacca
1-19tRNA-Cys(gca)c[63903,63976]
gcacggttgctggagtggaacagcttcggctgcaaaccgaatgtcaggt
gttcgattcacctaccgtgctcca
1-20tRNA-Leu(taa)c[64182,64259]

tgcgtccttggccaatctggcagaggcatgggtgtaagccccagggt
tcccgggttcgagtcgggagggcgcatc
1-21tRNA-Ser(cga)c[64536,64610]
ttctcgatagcttactttggtagagcgggtcccacgataggacggtaca
ggttcgattcctgttcgagaagcca
1-22tRNA-Thr(tgt)c[64617,64692]
gctcgtatagctcagttggtagagcaactcccttgaaggagaaggctcgt
gggttcaagtccactactcgagcacca
1-23tRNA-Lys(ctt)c[66919,66994]
ggggattaacacagcggtagttagcgcccttaagccgaaggctcga
aggttcgaatccttcacgccccacca
1-24tRNA-Met(cat)c[67460,67537]
agccctcaagctcattaggtatgagcaatcgactcataatcgagaggttag
gcaggttcgaatcctccgggggccacca
1-25tRNA-Met(cat)c[67540,67612]
cggtcagtagctcagttggtagagcaggttcttcacgacaaggctcag
tgggtcaattccactctgaacga

>KP211958.1 Cyanophage P-TIM40, complete genome

1-1tRNA-Arg(tct)[171831,171905]
tgattcagtagctcagtggtatagagcaactgtcttctaacagtcggtcgt
ttggttcgaatccaacctgagtcgt

>KM434186.1 Pseudomonas phage vB_PaeM_PS24, complete genome

1-1tRNA-Asn(gtt)[24047,24123]
tccgttcggctccctcaagtgaggagcttgactgttaatcaagacgtgc
ctggttcgattccaggagcggagcca
1-2tRNA-Tyr(gta)[24181,24268]
ggaggggtggcagagcgggttaatgcaccggactgtaaatccggcgtccg
accgggcatcgctggttcaaatccagccccctccacca
1-3tRNA-Gln(ttg)[24470,24546]
aggcgtgtggcgaaaaggttaacgcactggactttgactccagcatttg
tgggttcgaatcccaccacgtctgccca

>KP890823.1 Proteus phage vB_PmiM_Pm5461, complete genome

1-1tRNA-Glu(ttc)c[63149,63223]
acacccgtcgtctagtggttaaggacccctgccttcgagcaggttaaccgg
agttcgaatctccgtgggtgtgccca
1-2tRNA-Ser(tga)c[63229,63320]
ggagagttgtcagagaggtttaatgagacggcttgaaaaccgttgggta
ctggaaggtgctccatgggttcgaatcccatactctctcca
1-3tRNA-Asp(gtc)c[63665,63740]
ggcttattggtgtacctgggttaacatagttccctgtcacggaacagcacc
gagttcgattctcggttaagaccgcca
1-4tRNA-Gly(tcc)c[63940,64014]
gcggccttggtatagcgggtattttctggcttccaccagaagatagg
agttcaattctcctaggtcgtcca

1-5tRNA-Pro(tgg)c[64408,64484]
ctgtacgtagcgcagctctggtagcgtaggtgcttggatgcatcgggtcg
aaggttcgaatccttccgtacagacca
1-6tRNA-Met(cat)c[64687,64762]
ggccctctagcttactggtgaaagcgaacgcctcataagcgttggagca
tggttcgattccatggtgggtcacca
1-7tRNA-Tyr(gta)c[64768,64852]
ggtatcgtagtctagcggcaatgacaggagactgtaaatctccaggcttc
ggccttcggtagttcgagtctacccggtaccacca
1-8tRNA-Arg(tct)c[64860,64936]
gcacacttagctcagttggatagagcaaggaccttctaagccctaggtca
caggttcgaatcctgtagtgttacca

>KT454805.1 Escherichia phage SUSP1, complete genome

1-1tRNA-Pro(tgg)[47552,47628]
ctccgtttagctcagtttggtagagtgcgccgttggggcggtagagtcg
aaggttcaatcccttcaacggagacca
1-2tRNA-Glu(ttc)[47636,47713]
gttcagtagacaaattggtaaagtcaccacactttcaatgtggagttt
gagggttcaagtccttctggaacgcca
1-3tRNA-Met(cat)[47797,47873]
cgcggttatagagaaaggcgtctcacatgtctcattagcatggtatcgg
caggttcgactcctgcacccgcctcca
1-4tRNA-Asn(gtt)[47956,48032]
ggtgaggaagcacataaggcatgtgcggtcggtgtaaccgaatggtat
agggttcgaatccctaactcaccgcca
1-5tRNA-Asp(gtc)[48197,48274]
ggttatgtagtttaatctggttaaaatacctcactgtcactgaggaagat
gagggttcaaatcccttcgtaaccgcca
1-6tRNA-Lys(ttt)[48702,48777]
gggggtgtagcagaaaggtagtcggcagacttttaatctgacaggcgac
gggttcgaatccctccactcccacca
1-7tRNA-Met(cat)[48782,48858]
ggttcagtcgcagataaggtaatgaagggttcataagccctatgaatg
tgggttcgaatcccatctgaacctcca
1-8tRNA-Ile(gat)[48860,48935]
gctggtatagttaagaaggttataacactcccctgataagggaacatcgg
tggtcgattccactaccagtacca
1-9tRNA-Arg(tct)[49213,49289]
gcacccttagttcaattggatagagcaagtccttctaagcactgagtta
caggttcgagtcctgtaggggtgtgcca
1-10tRNA-Ser(tga)[50091,50180]
ggtagatagcggctaattggaagccaaattgtcttgaaaacaattgccatt
gtagtgatacggtaggggttcgactcctttatctaccgcc
1-11tRNA-Leu(tag)[50422,50499]

gggagattgacggaattggtaaacctaccatccttagaagttggtgtt
gagggttcgaatcccttgtctctacca
1-12tRNA-Lys(ctt)[50507,50582]
gcaggtgtagcaaaatggttatgcggctgactcctaatacagtaagacgat
gggttcaattccctccacctgtacca
1-13tRNA-Ala(tgc)[50589,50664]
ggggttgtagtttaaatggttaaaacataagtttgcaaacttaagtaca
gggttcgattccctgcttctccacca
1-14tRNA-Gly(tcc)[50671,50745]
gcatccatagtttaaacgggaaaattacagtcttccaaactgaggttgag
ggttcgattccctctggatgctcca
1-15tRNA-Thr(tgt)[50753,50828]
gtcctatcgtataattggctattacggtgccttgaagcaactatca
gggttcgaatccttgtgggagcacca
1-16tRNA-Val(tac)[50925,50999]
actcgcttagtttatacggtaaagcccatcctacaagttggtgaagaa
ggttcaagtccttcagcgagtacca
1-17tRNA-Leu(caa)[51002,51079]
gttcagatcccaattggcagaggatgcaagctcaaacctgtattagt
gacggttcgaatccgtcttggaaacacca
1-18tRNA-Arg(acg)[51258,51334]
gcagaattagttcaaatggatagagcagcagcctacgaagttgctgtta
ggggttcgaatcccttattctgcacca
1-19tRNA-Gln(ttg)[51920,51995]
aggggattagtttacaaggttaaaacctcggtcttgaaatcgaagaagt
tgggtcaattccaacatcccccgcca
1-20tRNA-Leu(taa)[51998,52076]
gtccattactccaattggcagagaggccagactaaaatctgtgttatg
tatcggttcgaatccgatatggagtacca
1-21tRNA-Gln(ctg)[52084,52159]
agcagtgtagcataactggcaatgctccagcctctgaagctgaaagatta
aggttcaaatccttacgctgctgcca
1-22tRNA-His(gtg)[52191,52267]
gtgccttatcataaatggataatgacctatgctgtgaacatggtctata
cgggttcgattcccgtaggtcacccca
1-23tRNA-Phe(gaa)[52276,52351]
gggttaagtagcttatatggttaaagcgcgtgtctgaaaaacatgagaag
agggttcaaatcccactaaccgcca
1-24tRNA-Ser(gct)[53106,53198]
ggaagattaaccctaaaaggtaagggaacagtttgctaaactgtcagtaa
ccgagaaatcggcgtaccagttcaagctggtatcttctcca
1-25tRNA-Cys(gca)[53206,53281]
gcgtcgatgacagaaatggctatgtgcctgtctgcaaacaggattatga
gggttcgactccctttcgacgtcca

>KT176190.1 Enterobacteria phage QL01, complete genome

1-1tRNA-Arg(tct)c[68858,68932]

gtcccgtggtgtaatggatagcatacgatccttctaagtttgcggtcct

ggttcgatcccaggcgaggatacca

1-2tRNA-Met(cat)c[68938,69014]

ggccctgtagctcaatggtagcagcagtcacctcataagggaaaggta

ccagttcaaatctggtctgggtcacca

>KR052482.1 Sinorhizobium phage phiN3, complete genome

1-1tRNA-Thr(tgt)c[82832,82915]

gccggtatagccaagcggcgaaggcacctgatttgaatcaggtattca

aacgtcggcagttcgaatctgtctaccggctcca

1-2tRNA-Gln(ttg)c[82916,82989]

ttgcccttagttcagttggtagaacgtcgaatttggtttcgaaggccg

tggttcgaatccacgagggaagc

1-3tRNA-His(gtg)[87863,87939]

tcatggatggtgtagtcaggtagcacgcggcactgtggatgccgaagca

taggttcaaactctattccatggacca

1-4tRNA-Asn(gtt)[96665,96738]

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aggttcgatccctacctccccagc

1-5tRNA-Met(cat)[96755,96831]

tgcgggtagtagcagtggttagctcgtctgcctcataagcagaaggta

tcagttcgaatctgatccccgaacca

>LN881726.1 Escherichia phage slur02, complete genome

1-1tRNA-Arg(tct)c[139969,140044]

cggggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt

aggttcgatccctactgcctcgacca

1-2tRNA-His(gtg)c[140049,140124]

gtggccgtagttcagttggtagaactcgagattgtgattctcgtagtc

gggttcgactcccatcggtcacccca

1-3tRNA-Asn(gtt)c[140239,140313]

ggatgtgtagctcaatggtagagcgatcgctgttaagcgattggtata

ggttcgaatcctatcacgtccgcca

1-4tRNA-Tyr(gta)c[140318,140404]

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tgcgactcgggtggttcgactccaccactccccacca

1-5tRNA-Met(cat)c[140417,140491]

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ggttcaattccaccagggccacca

1-6tRNA-Thr(tgt)c[140493,140568]

gctgatttagctcagtaggtagagcaactcacttgaatgaggacgtcgg

cggttcgattccgtcaatcagacca

1-7tRNA-Ser(tga)c[140575,140664]

ggaggcgtggcagagtggtttaatgcaccggtcttgaaccggcagtcg

ctccggcgactcataggttcaaactctatcgctccgccca
1-8tRNA-Pro(tgg)c[140666,140740]
ctccgtgtagctcagtttggtagagcgctgattgggatcaggaggtcc
aaggttcaaactctgtatggagac
1-9tRNA-Gly(tcc)c[140751,140824]
gcggatatactataatgggtattacctcagactccaatctgatgatga
gttcgattctcattatccgctcca
1-10tRNA-Leu(taa)c[140830,140916]
gcgagaatgggtcaaattggtaaaggcacagcacttaaatgctgcggaat
gatttcctgtgggttcgagtccttctcgacca
1-11tRNA-Gln(ttg)c[140917,140990]
tgggaattagccaagttgtaaggcactggattttgattccagatgcaa
aggttcgagtcctttattcccagc

>KP671755.1 *Vibrio* phage ValKK3, complete genome

1-1tRNA-Met(cat)[196346,196423]
ggccctatagctcaacacggtagcaaccgactcataatcggtaggtt
acaggttcgagtcctgttgggtcacca
1-2tRNA-Pro(tgg)[198599,198672]
cgggacgtggcgtaaaggtagcgttcgctttgggagcatgtgtaaga
gttcgagtcctctcgccccacca
1-3tRNA-Pro(tgg)[198682,198758]
ccgtgactagctcaatctggtagagtactccgtttggggcgagaagtta
agcgttcgaatcgcttgcacggacca
1-4tRNA-Arg(acg)[198767,198842]
gcccattagctcaattggaagagcagcgtcctacgaaggcgaaggttac
aagttcgaatctgtattgggtgcca
1-5tRNA-Leu(tag)[199390,199467]
gcgcaagtagcccaatctggcagaggcactggcttagaaaccagaagtt
aagattcgaatctcttcttgctacca
1-6tRNA-Phe(gaa)[199469,199543]
gcacccttagcttatcaggaaaagcggcgattgaagtcgccagtgctc
ggttcgattccgaggggtgcacca
1-7tRNA-Lys(ttt)[199632,199706]
gggtcgttagtataacggtagtacatctggcttttaaccagaagggtgag
agttcgaatctcttcgaccacca
1-8tRNA-Lys(ttt)[199718,199794]
gcgtcggtagctcatcatggaagacagggagcttttaactctcaggtgt
ctggttcgagtcagagcggctacca
1-9tRNA-Glu(ttc)[199858,199932]
tctccgtggactaacggtaggtcatcacctttcaaggtgaagtcgcg
agttcgaatctctcgggagaacca
1-10tRNA-Tyr(gta)[199939,200024]
ggagcgtacgtctcaaggtgagacaggggactgtaaatccctgaccctta
acgggtagagaggttcgattcctctacgtccacca

1-11tRNA-Ser(tga)[200224,200309]
gaaagattctgggtagcggcaacggcttggaaaaccgtcggtcaccggga
ggtgatgttagggtcgaatccctagtcttccgcca
1-12tRNA-Ile(gat)[200373,200446]
agtcccttagctcaacggtagagcgtgcgaccgataatcgcttggtgaaga
gttcgattctcttagggactacca
1-13tRNA-Trp(cca)[200453,200526]
aggggcatgatgtaaaggcagcatgacggattccaaacccgttcgtaga
gttcgaatctctatgccctgccca
1-14tRNA-Asn(gtt)[200601,200676]
ggatcgctaactcaatggtagagtgcctgcctgttaagcgaggagtcc
gagttcgagtctcggcggtccgcca
1-15tRNA-Asp(gtc)[200746,200821]
ggagccgaggtgtaaagggtgcatgtctccctgtcacggagaaggtagc
gggttcgaaacccgtcggttccgcca
1-16tRNA-Gln(ttg)[200841,200914]
tggggattggtgtaaaggcagcataacgtactttgaatgcgttggtatca
gttcgaatctgttatccccagcca
1-17tRNA-Thr(tgt)[201044,201118]
gctcctgaagcattgatggcgtgcagcggcttgttaaaccgcagaattc
ggttcgattccgaacgggagcacca
1-18tRNA-Arg(tct)[201840,201915]
gcgctgttagctcaattggaagacacgtcccttctaaggatggggttat
gagttcgaatctcatacggcgtgccca
1-19tRNA-Met(cat)[202438,202513]
ggtagcgtagctcaagtggcagagccacgctttcatacggcgaagatcc
gatttcgagtatcggtgtcacctcca
1-20tRNA-Gly(tcc)[202701,202774]
gcgggtatgatgtaatggtagcatgacgtcctccaagtcgttcgtctcg
gttcgagtcctgtaccgcgtcca
1-21tRNA-Val(tac)[202781,202854]
ggtcccttagtataatggcagtagctctctttacacagagaagaagtg
gttcgattccactagggactacca
1-22tRNA-His(gtg)[203270,203346]
gtggcagtggtgaagtggaaatacccccgggtgtgattccggaagatg
cgggttcgatccccgtctgtcacccca
1-23tRNA-Cys(gca)[203359,203432]
gctcgaatcgataatggcagtagacggattgcaaatccgcaggtcagg
gttcgattccctgttcgagctcca
1-24tRNA-Leu(taa)[203641,203717]
gcgcacgtggccaattggcagaggcatgaggcttaaaatctcagggatg
gcggttcgaatccggcgtgcgtacca
1-25tRNA-Leu(caa)[203833,203909]
gcccaactagccaattggcagaggcgtagtttcaaacactagatgatc

cgagttcgaatctcgggtgggcacca
 1-26tRNA-Ser(gct)[204078,204166]
 ggaagcatggtctaaaggtatgacagcacccctgctaaggtgctcgacgtt
 aatagcgttctctgggttcgactcccagtgcttccgcc
 >KR014248.1 Escherichia phage vB_EcoM_AYO145A, complete genome
 1-1tRNA-Pro(tgg)[26382,26458]
 ctctgttagctcagcttggttagagcgttccgttggggcggttaaggccg
 gaggttcaagtctccaacagagacca
 1-2tRNA-Glu(ttc)[26466,26543]
 gtccagtagacaaaatggtaaagtcaccactcttcaaagtgatattt
 gagggttcaaatcccttctggaacgcc
 1-3tRNA-Met(cat)[26635,26711]
 tgcgggtatagagaaaggcgtctcacatgtctcattagcatggtatcgg
 caggttcgactcctgcacccgcctcca
 1-4tRNA-Asn(gtt)[26789,26865]
 ggtaggaagcacataaggtatgtcggtcgcctgtaagcgaatggcac
 agggttcgaatccctgactaaccgcc
 1-5tRNA-Tyr(gta)[26875,26962]
 gtgtcggtatcccgtagatggtagcgggtgggactgtaaatccctgtca
 ttgagactcggtagggttcgactcctacacggcacacca
 1-6tRNA-Asp(gtc)[26969,27046]
 gggtatgtagttaatctggttaaaatactcccctgtcacgggagatgat
 gagggttcaaatcccttcgtaaccgcc
 1-7tRNA-Lys(ttt)[27506,27581]
 ggaagtgtagcagaatggtgatgcggcagacttttaatctgacaggcgat
 gggttcgaatccctccacttctacca
 1-8tRNA-Met(cat)[27586,27662]
 gggtcagtcgcagataaggtaatgcaggggtctcataagccctatgaatg
 tgggttcgattcccatctgaacctcca
 1-9tRNA-Ile(gat)[27664,27739]
 gctggtatagttaagaaggtataacactcccctgataagggaacatcgg
 tgggtcgattccactaccagtacca
 1-10tRNA-Ser(tga)[28308,28397]
 ggtaggtagcggctaattggtagccaaactgtctgaaaacagttgccact
 gtagagatacggtaggggttcgactccttacttaccgcc
 1-11tRNA-Leu(tag)[28653,28730]
 ggagattgacggtaattggtaaacctatctcgcttagaacgagatgttt
 gagggttcgaatccctgtctctacca
 1-12tRNA-Lys(ctt)[28738,28813]
 gcagggttagcaaaatggttatgcggctgactcttaacagtaagacgat
 gggttcaattccctccacctgtacca
 1-13tRNA-Ala(tgc)[28820,28895]
 ggggatgtagttttacatgggttaaacataagtttgcaacttaagtaca
 gggttcaattccctgcttctccacca

1-14tRNA-Gly(tcc)[28902,28976]

gcatccatagtttaaacgggaaaattacagtcttccaactgaggttgag
ggttcgattccctctggatgctcca

1-15tRNA-Thr(tgt)[28983,29059]

gctgctttcgataattggctattacacatccctgtgaaggatggaaatg
caggttcgagtcctgtgagcagcacca

1-16tRNA-Val(tac)[29156,29230]

actcgcttagtttatatggtaaaacatcacccttacaagatgaagaaaaa
ggttcaagccctttagtgagtacca

1-17tRNA-Leu(caa)[29232,29309]

gttcagtatcccaattggcagaggatgaagctcaaacctgtattagt
gacggttcgaatccgtcttggacacca

1-18tRNA-Arg(acg)[29315,29390]

gcaggattagtcaaatggaaagagcaacagctctacgaagctgtaatatg
gggttcgaatcccttatacctcgcca

1-19tRNA-Gln(ttg)[29976,30051]

aggggattagttacaaggttaaacctcggctttgaaatcgaagaagt
tggttcaattccaacalcccccgcca

1-20tRNA-Leu(taa)[30054,30132]

gctccattactccaattggcagagaggccagacttaaaatctgtgtatg
tatcgggtcgaatccgatatggagtacca

1-21tRNA-Gln(ctg)[30138,30213]

agcggatatagcataactggcaatgaacagctctgaagctgcctatta
aggttcaaatccctatgccgtgcca

1-22tRNA-His(gtg)[30245,30320]

gtggccttatcataaaaggtaatgacccatgctgtgaacatggcttatac
gggttcaaatcccgtaggtcacccca

1-23tRNA-Phe(gaa)[30327,30402]

agtccaagtagcttatatggttaaagcgcgtgtctgaaaaacatgagaag
agggttcaaatcccactggactacca

1-24tRNA-Ser(gct)[31155,31247]

ggaagattaaccctaaaaggtaaggagcagtttgctaaactgccagtag
ctgagaaatcggtgtaccagttcaagctggtatcttctcca

1-25tRNA-Cys(gca)[31252,31327]

gaatccgtgacagaaatggctatgtgcctgtctgcaaaacaggtttataa
gggttcgagtccttcggattctcca

>HQ630627.1 Pseudomonas phage PhiPA3, complete genome

1-1tRNA-Ser(tga)c[294661,294749]

ggaagcgtggccgagtggtttaaggcacctgactgaaatcagacgggtc
caaagggccctagagttcgaatctctgcgctccgcca

1-2tRNA-Thr(tgt)c[294861,294937]

gccgttatagctcagctggtagagcaactgacttgtaatcagtaggtcga
cgggttcgaatccctctgacggcacca

1-3tRNA-Tyr(gta)c[299238,299317]

ttgatgtatagacagatggctactgtcaggggtctgtaacacccccgcct
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 1-4tRNA-Asn(gtt)c[299475,299550]
 tccggaatagctcagctggtagagcaacaagctgtaacttgggtcac
 atgttcgaatcatgttccggagcca
 1-5tRNA-Leu(taa)c[303149,303233]
 gcccgaaatggcgtaaaggcagccgctgctgacttaaaatcagttgtcctt
 gtgacgtgtgggttcgagtcaccttcgggtacca
 >LN881732.1 Escherichia phage slur07, complete genome
 1-1tRNA-Gln(ttg)[92843,92916]
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 aggttcgagtcctttattcccagc
 1-2tRNA-Leu(taa)[92917,93003]
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 gatttccttgggttcgagtcaccttctcgacca
 1-3tRNA-Gly(tcc)[93009,93082]
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 gttcgatttcattatccgctcca
 1-4tRNA-Ser(tga)[93744,93833]
 ggaggcgtggcagagtggtttaatgcaccggtcttgaaaaccggcagtcg
 ctccggcgactcataggttcaaactcctatcgctccgcca
 1-5tRNA-Thr(tgt)[93840,93915]
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 cggttcgattccgtaatcagcacca
 1-6tRNA-Met(cat)[93917,93991]
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 gttcaattccaccagggccacca
 1-7tRNA-Tyr(gta)[94004,94090]
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 tgcgactcgggtggttcgactccaccactccccacca
 1-8tRNA-Asn(gtt)[94095,94169]
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 1-9tRNA-Arg(tct)[94174,94249]
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 >KT454806.1 Escherichia phage SUSP2, complete genome
 1-1tRNA-Pro(tgg)[45779,45855]
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 aaggttcaatcccttcaacggagacca
 1-2tRNA-Glu(ttc)[45863,45940]
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 1-3tRNA-Met(cat)[46024,46100]

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caggttcgactcctgcacccgcctcca
1-4tRNA-Asn(gtt)[46183,46259]
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1-5tRNA-Asp(gtc)[46424,46501]
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1-6tRNA-Lys(ttt)[46930,47005]
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1-7tRNA-Met(cat)[47012,47088]
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1-8tRNA-Ile(gat)[47094,47170]
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1-9tRNA-Arg(tct)[47447,47523]
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caggttcgagtctgtagggtgtgcca
1-10tRNA-Ser(tga)[48056,48144]
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cagagatgggtaagggttcgaatccttcactttccgcca
1-11tRNA-Leu(tag)[48384,48461]
gggagattgatgtaattggtaaacctatctcgcttagaacgagatgtt
gagggttcgaatcccttgtctctacca
1-12tRNA-Lys(ctt)[48469,48544]
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gggttcaattccctccacctgtacca
1-13tRNA-Ala(tgc)[48551,48626]
ggggatgtagttacatgggtaaaacataagtttgcaacttaagtaca
gggttcaattccctgcttctccacca
1-14tRNA-Gly(tcc)[48633,48707]
gcatccatagtttaaacgggaaaattacagtcttccaaactgaggttgag
ggttcgattccctctggatgctcca
1-15tRNA-Thr(tgt)[48714,48790]
gtcgtttcgataattggctattacacatcccttgaaggatggaaatg
caggttcgagtcctgtgagcagacca
1-16tRNA-Val(tac)[48890,48964]
actcgcttagtttataggtaaagcccatccttacaagttggtgaagaa
ggttcaagtccttcagcgagtacca
1-17tRNA-Leu(caa)[48967,49044]
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1-18tRNA-Arg(acg)[49223,49299]
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ggggttcgaatcccttattctgcacca

1-19tRNA-Gln(ttg)[49885,49960]
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tggttcaattccaacatccccgccca

1-20tRNA-Leu(taa)[49963,50041]
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tatcgggtcgaatccgatatggagtacca

1-21tRNA-Gln(ctg)[50049,50124]
agcagtgtagcataactggcaatgctccagcctctgaagctgaaagatta
aggttcaaatccttacgctgctgccca

1-22tRNA-His(gtg)[50156,50232]
gtggccttatcataaatggataatgacccatgctgtgaacatggctcata
cgggttcgattcccgtaggtcacccca

1-23tRNA-Phe(gaa)[50241,50316]
gggttaagtagcttatatggttaaagcgcgtgtctgaaaaacatgagaag
agggttcaaatcccactaaccgccca

1-24tRNA-Ser(gct)[51071,51163]
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ccgagaaatcggcgtaccagttcaagtctggatcttctcca

1-25tRNA-Cys(gca)[51171,51246]
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gggttcaactccctttcgacgtcca

>KR869820.1 *Citrobacter* phage IME-CF2, complete genome

1-1tRNA-Gly(tcc)[69604,69679]
gcaggtatagttcaattggtagaatatctggcttccatccagaatgttga
gggttcgagtcctttacgtctcca

1-2tRNA-Met(cat)[69685,69761]
ggcccttttagctcaattggtagagcgaacccctcataagggtgtggttgc
cgggttcgaatcggggaggggccacca

>JX306041.1 *Stenotrophomonas* phage IME13, complete genome

1-1tRNA-Arg(tct)[64250,64326]
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ttggttcaaatccaatagggaactgccca

1-2tRNA-Met(cat)[65607,65682]
ggccctctgcacagctctgaatgtgtccagctcataactgggtaaggc
gggttagattcccgcgagggccacca

1-3tRNA-Met(cat)[65885,65961]
tgcgatgtagaggagaggtcgtcctcgtcgggtcatatcccgaaaatcg
gcagttcgaatctgtccgtcgttcca

1-4tRNA-Asp(gtc)[65974,66047]
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gagttcgatcctcgggtggctccgc

1-5tRNA-Ser(gct)c[66125,66212]
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gaaaggtttcgagagttcgaatctctcttctccgcca
1-6tRNA-Ile(gat)c[66220,66295]
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1-7tRNA-Trp(cca)c[66298,66373]
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gggttcgaatccttgatgcatgcca
1-8tRNA-Thr(tgt)c[66738,66813]
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ccgttcgaatcggacaaccggcacca
1-9tRNA-Pro(tgg)c[67071,67148]
ccgtgtgtaggctagtcaggttaggtcgtctggttggggtcagaaagtc
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1-10tRNA-Gly(tcc)c[67393,67468]
gcgatattagctcagttggtagagcttctgattccaatcagaatgcat
cgggtcgagaccgatatatcgctcca
1-11tRNA-His(gtg)c[67481,67555]
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1-12tRNA-Lys(ttt)c[67754,67828]
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1-13tRNA-Tyr(gta)c[67858,67940]
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1-14tRNA-Asn(gtt)c[68537,68613]
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1-15tRNA-Ser(tga)c[68782,68875]
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1-16tRNA-Leu(taa)c[69068,69152]
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cgggattgtgggttcgagtcctactactgcacca

>KT281790.1 Mycobacterium phage HyRo, complete genome

1-1tRNA-Ser(gct)[30120,30203]
ggagggtgagcatctggtgatgcagggtcctgctaaggccctacggatt
cacaccctgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[30300,30376]
gccctgctgagcaactggcaagctgccgattcagagtgcgggtcatt
tccgggttcgactcccgggcagggtac
1-3tRNA-Leu(gag)[30496,30570]

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1-4tRNA-Leu(caa)[30571,30644]
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1-5tRNA-SeC(tca)[67440,67536]
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1-6tRNA-Pro(tgg)[90954,91028]
cggggtgtagttcagtttgaagagcgttggttgggaccaagtgtcg
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1-7tRNA-Trp(cca)[91043,91113]
gggtctgtgcacagggtccccgacggtctccaaagccgaaggcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Pyl(cta)[92250,92323]
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1-9tRNA-Met(cat)[92472,92546]
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1-10tRNA-Cys(gca)[92674,92745]
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1-11tRNA-Glu(ctc)[92813,92884]
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1-12tRNA-His(gtg)[92939,93012]
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1-13tRNA-Ala(tgc)[93176,93249]
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1-14tRNA-Phe(gaa)[93439,93511]
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1-15tRNA-Val(cac)[93517,93590]
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1-16tRNA-Lys(ctt)[93712,93785]
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1-17tRNA-Glu(ttc)[93790,93866]
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1-18tRNA-Gly(tcc)[93946,94018]
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1-19tRNA-Thr(cgt)[94079,94153]
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1-20tRNA-Thr(tgt)[94154,94226]
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1-21tRNA-Thr(ggt)[94634,94706]
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1-22tRNA-Gly(gcc)[96029,96102]
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1-23tRNA-Asp(gtc)[96106,96178]
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gtatcgtaatccgtcagggtcgc
1-24tRNA-Met(cat)[96238,96310]
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1-25tRNA-Ile(gat)[96316,96390]
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1-26tRNA-Arg(acg)[96484,96556]
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1-29tRNA-Arg(cct)[96843,96916]
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1-31tRNA-Gln(ttg)[97437,97512]
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1-32tRNA-Arg(tct)[97516,97591]
gccctgtagctcagtggaagagcggcgagcttctacctcggggccgg
gagttcgaatctctccagggcacca
1-33tRNA-Gln(ctg)[125143,125217]
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ggttcgaatccaggcgagcaacca
1-34tRNA-Asn(gtt)[125224,125299]
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>KF835987.1 Pectobacterium bacteriophage PM2, complete genome
1-1tRNA-Gly(tcc)c[71819,71894]
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1-2tRNA-Trp(cca)c[73340,73413]
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1-3tRNA-Ser(tga)c[73735,73826]
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1-6tRNA-Met(cat)c[74090,74166]
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tcggttcgagtcggcacccgcctcca
1-7tRNA-Asn(gtt)c[74762,74846]
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1-8tRNA-Ile(gat)c[74851,74925]
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1-9tRNA-Pro(tgg)c[74942,75019]
ccgtgtgtagcgcagcttggtcagcgtaggagctttggatgcttcgggtc
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1-10tRNA-Tyr(gta)c[75027,75107]
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1-11tRNA-Arg(tct)c[75397,75471]
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agttcgattcttggtgaggtacca
1-12tRNA-Met(cat)c[75475,75549]
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ggttcgaatccggcaagggtcacca
1-13tRNA-Leu(taa)c[75560,75647]
ccggatgtggtgattggcagtagcacacgggatttaaaatcccacagag
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>KC954775.1 UNVERIFIED: Cronobacter phage S13, complete genome

1-1tRNA-Leu(taa)[118148,118224]
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cgggttcgaatcccagcgtctacca
1-2tRNA-Leu(caa)[118229,118305]
gctcgcgtgacgcaattggcagacgtgccctctcaaaaggggaatgttg
agagttcgagtctctccgcgacacca
1-3tRNA-Met(cat)[118726,118801]
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gggttcgaatcccacggggaccacca
1-4tRNA-Lys(ttt)[120360,120436]
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agggttcgaatccctaatgaccgacca
1-5tRNA-Glu(ttc)[120551,120626]
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gagttcgaatctcgatgggatacca
1-6tRNA-Tyr(gta)[120635,120719]
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ggagattcctagttcgagtctaggacggcgacca
1-7tRNA-Asp(gtc)[120840,120916]
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cgagttcgatcctcgtcacgaccgcca
1-8tRNA-Pro(tgg)[121000,121077]
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gagagttcaaatccctccgcacggacca
1-9tRNA-Asn(gtt)[121315,121389]
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ggagttcaaatctctcatggtcgc
1-10tRNA-Leu(tag)[121651,121728]
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gagagttcgagtctctcataccacca
1-11tRNA-Arg(acg)[122018,122093]
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gagttcgagtctcaatatctgtcca
1-12tRNA-Gly(tcc)[122095,122170]
gcggtagtaactcagttggtagagtgccgtcctccaagtcggatgtcgc
gagttcgaatctcgtctgccgtcca
1-13tRNA-Phe(gaa)[122642,122714]
gggtccttagcttaaatgggaaagcgggtgattgaagatctccagttcac
ggttcgattccgtggggaccac
1-14tRNA-Ala(tgc)[122727,122802]
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gggttcgagtccttctgtccacca
1-15tRNA-Gln(ttg)[122809,122883]

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 1-16tRNA-Trp(cca)[122991,123066]
 aggagcatagtttaacaggcgaaaatttcggtctccaaaaccgacgttct
 gagttcgaatctcagtgctcctgcc
 1-17tRNA-Cys(gca)[123077,123152]
 gcctgggtacccgagaggttaaggcgcggttgcaaatccgttgctgcgt
 cagttcgaatctgactccaggctcca
 1-18tRNA-Ile(gat)[123154,123230]
 agtcccgtagctcagttggccagagcaaacgaccgataatcgttggtgca
 cgcgttcgaatcgcgtcgggactacca
 1-19tRNA-Arg(tct)[123238,123314]
 gcttcgtagctcaaccggatagagcatcggcttctaaaccgagggtta
 tgtgttcgagtcacatcgtgagtacca
 1-20tRNA-Met(cat)[127251,127324]
 tgcgcggtagtgaaatggatcatttgggggtcataaccctaagtggaa
 gttcgaatcttcctgcgcatcca
 1-21tRNA-Met(cat)[127327,127402]
 ggtgaattagctcaactggcagagcacgtccttcatacggatgaggttat
 gagttcgaatctcatattcacctcca
 1-22tRNA-His(gtg)[127435,127511]
 gtggccaaagcctttatctggatgaggttcgacctgtgacgtcgaggaag
 agggttcgattccctctggtcacccca
 1-23tRNA-Ser(tga)[127516,127609]
 ggagagttggcagagtttggttattgcacctgacttgaaatcagacgat
 cccctaaaaagggtccgtgggttcgaatccacactctcctcca
 1-24tRNA-Thr(tgt)[127757,127832]
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 ggggttcgagtccttggtgggagcacca
 1-25tRNA-Ser(gct)[135021,135109]
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 tctgacggctgagagttcaggtctctcactcaccccca

>KP007360.1 Enterobacteria phage vB_EcoM_VR20, complete genome

1-1tRNA-Arg(tct)c[69911,69987]
 cgggggtgtagtcaattgtatagagcaacggcttctaaaccgtaggttg
 tgggttagaatcccaccaccccgacca
 1-2tRNA-Met(cat)c[69989,70063]
 ggccctgtagtcaattggtagagcatccggctcataactggcaggttt
 ccggttcaagtcggatggggccac

>KT736033.1 Pseudomonas phage K8, complete genome

1-1tRNA-Gln(ttg)[22297,22370]
 tgccgcttcgttcaattggtaggacgccagacttgaatctggagatgatg
 gttcgatcccatcagtggtgccca
 1-2tRNA-Arg(tct)[22576,22650]

gctcgtatagttaacggatgcacaacggtcttctaagccgtaaggtcta
 gggtcgaatcctagtagagcgcca
 1-3tRNA-Lys(ttt)[22658,22734]
 tggacggaagctaagtggaatgagcatctggctttaaccagattatag
 tgagttcgagttcaccgggtcaacca
 1-4tRNA-Leu(tag)[23009,23093]
 ggccctgtggtggaattggtatacacatcagtccttagaaactgacgccga
 gaggattgagggtcaagtcctccggggccacca
 1-5tRNA-Ile(gat)[23304,23379]
 gccagatagctcaattggtagagcaccgaccgataatcggtggtga
 aggttcaagtccttctctggccacca
 1-6tRNA-Asp(gtc)[23389,23467]
 ggcattagctcagtcctggactagagcaagcccctgtctagggaaggt
 cgccggtcgaatccggcatgggtcgcca
 1-7tRNA-Cys(gca)[23724,23799]
 ccctcgttggccgagaggatcaggcagcagattgcaaatctgccatacat
 cggttcaaatccgatacagagctcca
 1-8tRNA-Asn(gtt)[23809,23885]
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 taggttcgattcctaggtacggagcca
 1-9tRNA-Pro(tgg)[23948,24025]
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 gaaggttcaaatccttccgggtgacca
 1-10tRNA-Gly(tcc)[24033,24109]
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 aggggtcgaatccctaagccgcacca
 1-11tRNA-Phe(gaa)[24172,24247]
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 tggatcgttaccagcagatgcacca
 1-12tRNA-Glu(ttc)[24254,24329]
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 gggttcgatccccgtaactgctcca
 1-13tRNA-His(gtg)[24390,24464]
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 ggggttcgagtcctccctccaacc
 1-14tRNA-Thr(tgt)[24651,24725]
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 tgttcaagtcaggaatggggcacca

>KT224359.1 Bacillus phage TsarBomba, complete genome

1-1tRNA-Cys(gca)[26558,26631]
 gaaggtgtaccgaagtggcttaacgggctaggttgcaaccctagtgtctcg
 tgggttcgaatcccaccatcttct
 1-2tRNA-Asn(gtt)[26645,26719]
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ggttcgaatccaccaggagcgcca
1-3tRNA-Ser(gct)[26724,26814]
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tccttaacgtaccacaggttcaaatcctgtactctccgcca
1-4tRNA-Gly(tcc)[27005,27080]
ggggcattagtatatcggttcattatcctggctccaaccaggggaggt
cggttcgattccgacatgtccctcca
1-5tRNA-Thr(tgt)[27085,27160]
gccttcttagctcagttggtagagcgattgacttgtaatcaataggtcgt
gggttcgaatcctacagtcggcacca
1-6tRNA-Asp(gtc)[27166,27238]
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1-7tRNA-Glu(ttc)[27367,27440]
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agggttcgaatcccttataccctt
1-8tRNA-Ile(tat)[27444,27518]
gccccttagccaagcgggtcaaggcagtgaggattatgtcctgcgaatcg
gaagttcgaatctccaaggggagc
1-9tRNA-Arg(tct)[27618,27693]
tatcccttagccaagtggttaaggcatcgggcttctatcccgtagatc
gtgggttcgattcctacagggggtgt
1-10tRNA-Ser(tga)[27782,27873]
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gtgtaaaagcgtgcgtgggttcgaatccactcctccgcca
1-11tRNA-Gln(ttg)[27951,28023]
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ggttcgagaccatcctccgaagt
1-12tRNA-His(gtg)[28106,28178]
cggggtgtggcgtaacggttaacgcaagtactgtggatcactgaatagg
ggttcgattcccctcatcctgac
1-13tRNA-Pro(tgg)[28186,28261]
gtgggtgtagctcagattggctagagcgcttgcttgggagcaagaagtc
gcaggttcaagtcctgtcaccgccc
1-14tRNA-Phe(gaa)[28369,28444]
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agggtcgaaccctactccgtccacca
1-15tRNA-Tyr(gta)[28586,28672]
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agatacatgacgggtcgaatcctgcctttccacca
1-16tRNA-Ile(gat)[28674,28750]
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taggttcgaatcctaccctagtagca
1-17tRNA-Leu(taa)[28761,28848]

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1-18tRNA-Leu(tag)[28854,28929]
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tgggttcgagtcccaccttcggtatc
1-19tRNA-Met(cat)[29079,29151]
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aggttcaactcctactagcccta

>KP339049.1 Enterococcus phage EFDG1, complete genome

1-1tRNA-Pro(tgg)c[44887,44959]
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1-2tRNA-Ala(tgc)c[45279,45351]
ggggcattagctcagttgggagagcgtacccttgcaaggtagatgtcag
cggttcaagtccgctatgtcca
1-3tRNA-Arg(tct)c[45359,45433]
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tgagttcgaatctcagcggaggtgt
1-4tRNA-Ser(tga)c[45835,45923]
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1-5tRNA-Ser(gga)c[46019,46105]
ggaaggttactcaaacggtaaagaggcttggttggaaccaagtagatgt
gtaacagcatgtgtgggttcgaatcccatgcctcca
1-7tRNA-Leu(tag)c[47280,47355]
tgcgagagtatcccaactggcagaggaagtagacttagaatctattcagt
gagggttcgaatccctcctctgtat
1-8tRNA-Leu(taa)c[47997,48082]
tcgggtatggcggaattggtatacctgtggacttaaaatccattgtcc
tttgtacatgcaggttcgactcctgttacctgtat
1-9tRNA-His(gtg)c[48259,48329]
gtgactgtacctaattggaaggcagtttctgtggaacatgaatctca
gttcgattctgagcagtcaca
1-10tRNA-Ile(gat)c[49038,49111]
accagtgtagctcagttggttagagcatcgtcttgataaggcgggtgtca
gaggtcaaatcctctcactggta
1-11tRNA-Val(tac)c[49265,49336]
accgtcttagttcagttgggagaacgccacccttacaagtgatgtcaca
ggttcaaactcgttagacggtta
1-12tRNA-Arg(acg)c[49569,49641]
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aggttcgattcctttactgtcgg
1-13tRNA-Lys(ttt)c[49742,49818]
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 agttcgattctctcaatcagca
 1-16tRNA-Phe(gaa)c[51446,51519]
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 1-17tRNA-Cys(gca)c[51641,51713]
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 1-18tRNA-Trp(cca)c[51953,52026]
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 ggggtcgaatccttcacggcgtgt
 1-19tRNA-Met(cat)c[52237,52309]
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 1-20tRNA-Glu(ttc)c[52516,52589]
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 gattcgaactctctcatgcgtat
 1-21tRNA-Asp(gtc)c[52593,52669]
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 catgggttcaagtcacatatagtcgt
 1-22tRNA-Ser(gct)c[53569,53660]
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 1-23tRNA-Gln(ttg)c[53768,53841]
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 aggttcgaaccctgtcctgacagt
 1-24tRNA-Asn(gtt)c[53932,54004]
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 ggttcaagtcctgctaggtgagt

>KM092515.1 Escherichia phage HY02, complete genome

1-1tRNA-Pro(tgg)[25341,25417]
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 gaggttcaagtcctccaacagagacca
 1-2tRNA-Glu(ttc)[25425,25502]
 gttccagtagacaaaatggtatagtcaccactctttcaaagtggaattt
 gagggttcaaatccattctggaacgcca
 1-3tRNA-Met(cat)[25594,25670]
 tgcgggtatagagaaaggcgtctcacatgtctcattagcatggtatcgg
 caggttcgactcctgcacccgcctcca

1-4tRNA-Asn(gtt)[25748,25822]
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agggttcgaatccctgactaaccgc
1-5tRNA-Tyr(gta)[25833,25920]
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1-6tRNA-Lys(ttt)[26348,26423]
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1-7tRNA-Met(cat)[26428,26504]
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tgggttcgattcccatctgaacctcca
1-8tRNA-Ile(gat)[26506,26581]
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1-9tRNA-Arg(tct)[26829,26905]
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1-10tRNA-Ser(tga)[27144,27233]
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1-11tRNA-Leu(tag)[27490,27567]
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1-12tRNA-Lys(ctt)[27575,27650]
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1-13tRNA-Ala(tgc)[27657,27732]
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gagttcaattctcagtactccacca
1-14tRNA-Gly(tcc)[27739,27813]
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1-15tRNA-Thr(tgt)[27821,27896]
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1-17tRNA-Leu(caa)[28070,28147]
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1-18tRNA-Arg(acg)[28153,28228]
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1-20tRNA-Leu(taa)[28892,28970]
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1-21tRNA-Gln(ctg)[28976,29051]
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1-23tRNA-Phe(gaa)[29165,29240]
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1-24tRNA-Ser(gct)[29993,30085]
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ctgagaaatcggtgtaccagttcaagctggtatcttctcca
1-25tRNA-Cys(gca)[30090,30165]
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gggttcgagtccttcggattctcca

>KF055347.1 Escherichia phage JH2, complete genome

1-1tRNA-Cys(gca)c[69613,69688]
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1-2tRNA-Ser(gct)c[69693,69785]
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1-4tRNA-His(gtg)c[70620,70695]
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1-6tRNA-Leu(taa)c[70808,70886]
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1-7tRNA-Gln(ttg)c[70889,70964]
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ggttcgattccctctggatgctcca
1-13tRNA-Ala(tgc)c[72044,72119]
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 gagggttcaaatcccttctggaacgcca
 1-26tRNA-Pro(tgg)c[74623,74699]
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 >KC595512.2 Bacillus phage JL, complete genome
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 >KP007361.1 Enterobacteria phage vB_EcoM_VR25, complete genome
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 1-4tRNA-Asp(gtc)c[30974,31049]
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 acgagttcgagtcctgtatgagtcgt
 >KP202158.1 Yersinia phage vB_YenM_TG1, complete genome
 1-1tRNA-Gly(tcc)c[64617,64692]
 gcagagttcgatatagtggttaatactattggtttccgccagtaaacat
 cgggtcgaatccgatactctgtcca

1-2tRNA-Trp(cca)c[64945,65019]
 aggtctttagtatagtggcgattatgctaggctcaaacctagtgacgag
 tgttcgattcactcaaggcctgcca
 1-3tRNA-Arg(tct)c[66301,66377]
 gtctcatagctcaacaggacagagcaacggtcttctaaccgtagggtg
 ctggttcgattccagctggggacacca
 1-4tRNA-Met(cat)c[67178,67254]
 ggccctttagctcagatggatagagcagtcgactcataatcgattggta
 ctggttcaaatccagtaagggccacca
 >KF356199.1 Microcystis phage MaMV-DC, complete genome
 1-1tRNA-Met(cat)c[38445,38517]
 gcaggattggccgataggtggaggcaccgtcctcataagacggcttagag
 cggttcgattccgctatcctgca
 1-2tRNA-Tyr(gta)c[152269,152351]
 gggtagtgccgagtagtcgaaggcaacagactgtaaatctgtagta
 attccacgctgggtgcaaatccagcctaaccac
 >KP007359.1 Enterobacteria phage vB_EcoM_VR5, complete genome
 1-1tRNA-Arg(tct)c[67942,68017]
 cgaggcatagctcagaaggaagagcaaggaccttctaagtcctagtcgt
 aggttcgatccctactgtctcgacca
 1-2tRNA-Met(cat)c[68152,68225]
 ggccctgtagctggacggtaagcgagcgactcataatcgctggatgggtg
 gttcgattccaccagggccacca
 >KC595513.2 Bacillus phage Shanette, complete genome
 1-1tRNA-Met(cat)[33565,33641]
 tggttccttagctcaattggttagagcacacggctcataaccgtgcggtt
 gtaggttcgattcctacaggaatcatc
 1-3tRNA-Trp(cca)[34766,34841]
 tgggggtatagttttaactggctaaaaccgtggtctcaacaccactatt
 ctaggttcgaatcctagtgccctcgt
 >JF704092.1 Mycobacterium phage Alice, complete sequence
 1-1tRNA-Ser(gct)[29314,29397]
 ggagggtagcatctgggtgatgcaggggtcctgctaaggccctacggatt
 catacccgtagtttcgattactcctccctccgc
 1-2tRNA-Leu(cag)[29494,29568]
 gctccgctatgcaaactggcaaagcagccgtgttcagagcgcggtgtttc
 tcggttcgaccccgaggcggagtgc
 1-3tRNA-Leu(gag)[29572,29646]
 gtctctgtaggcaaactggcaaagcccatcttgagggggtggtgcgtg
 cgggttcgactcccgcagagacac
 1-4tRNA-Leu(caa)[29647,29720]
 gccgtggtaggccatctggcgagccgccgagttcaagtttcggtgtttgc
 ggggtcgaatcccggccacggtac
 1-5tRNA-SeC(tca)[67477,67573]

attctggcactgggtggcgagcccaccggcgagccttcaagctgtcgct
ggccggagaatcgaccggaacatcccgttcaacgcgaccaggggcc
1-6tRNA-Pro(tgg)[90640,90714]
cgggggtgtagttcagtttgaagagcgcttggtttgggaccaagttgtcg
caggttcgaatcctgtcaccgccgac
1-7tRNA-Trp(cca)[90729,90799]
gggtctgtgcacaggggtccccgacggctctcaaagccgaaggcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Tyr(gta)[90801,90885]
cccgtacatgcccaactggtgttgggagcaggctgtaaccctgtggcct
tcgggacggtaggttcgattcctcagtcggggac
1-9tRNA-Pyl(cta)[92340,92412]
gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgtcg
gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[92562,92636]
agcgggtgtagagcagctaggtagctcgccgggtcatgaccggaggacg
cgtgttcgattcacgccaccgccac
1-11tRNA-Cys(gca)[92763,92834]
gcgccttggcggaatggctacgtgctcggtcgaacccgagttatcccg
gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[92902,92973]
gtcccatgggtagtggttaaccctcctggttctcagccaggcgtccga
gttcgatcctcggtaggtgc
1-13tRNA-His(gtg)[92975,93048]
gtggccgtagttcagccggtagaacgtgggttgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[93212,93285]
gggcctatagctcatctggtagagcgcttccttgcaagcaggaggcggc
aggttcaagtcctgttaggtccac
1-15tRNA-Phe(gaa)[93475,93547]
gccgtcatagctcagttggtagagcactggcctgaaaaccggtagggcga
ggttcgagtcctcgtgtcggcac
1-16tRNA-Val(cac)[93553,93626]
gtccgttagctcagctggaagagcgctcgggtccacaccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Gly(gcc)[95021,95096]
gcgaaggtagctcagcctggccagagcatcacgttgccaaggtggaggtc
cggggatcgtaacccgttctcgctc
1-18tRNA-Asp(gtc)[95100,95172]
ggccctgtagctcagaggaagagcacccgcctgtcgagcgggaggtcgcg
gtatcgtaatccgtcagggtcgc
1-19tRNA-Met(cat)[95232,95304]
gcctcactagctcattggtagagccgctcgctcataacgtgcaggtacct
ggttcgattccagggtgaggtac

1-20tRNA-Ile(gat)[95310,95384]
gcctgttagcggactggctcgtccgatccaagctgataactggcgtaagc
ggtgttcgattcaccgagcaggtac

1-21tRNA-Arg(acg)[95478,95550]
gcctctatggtccaacggagatgacgccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac

1-22tRNA-Val(gac)[95593,95665]
gtccgtgtagctcagggtagagcgctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac

1-23tRNA-Arg(ccg)[95760,95829]
gtcctcgctgacggactctgccctggccctccggaggccgggtgggtgggt
tcgattccacccggggacac

1-24tRNA-Arg(cct)[95837,95910]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac

1-26tRNA-Gln(ttg)[96432,96507]
tggggatggtggcaatctggcagtcgcccgcgactttgactccggaggt
gcaggttcgagccctgctaccccatc

1-27tRNA-Arg(tct)[96511,96586]
gccctgttagctcagtgagacagagcgcgagcttctatctcggggccgg
gagttcgaatcctccaggggcacca

1-28tRNA-Lys(ttt)[96636,96709]
ggggcggttggtgaacgtggttatcactcttggttttaccttgaatacc
gggatcgagacccggagcggccac

1-29tRNA-Gln(ctg)[124380,124454]
tgctcgttggtgtaactggcaacactacggactctggctccgtcattctt
ggttcgaatccagggcgagcaacca

1-30tRNA-Asn(gtt)[124461,124534]
tgggggtagttcaactggaagaacgctcgactgttaatcgagtagttga
aggttcgagtcctccactccagc

>KP007362.1 Enterobacteria phage vB_EcoM_VR26, complete genome
1-1tRNA-Arg(tct)c[67359,67435]
cgggggttaactcaattgtatagtagcggctcctctaaaccgcaggtta
aaggttagaatcctttacccccacca

1-2tRNA-Met(cat)c[67440,67514]
ggcccttagctcaatgggagagctgtcagctcataactgataggtagct
ggatcgaaaccagcaagggccacca

>KF767351.1 Lactobacillus phage phi jlb1, complete genome
1-1tRNA-Glu(ttc)[12231,12304]
tggctcgttggtcaaatggctaagactccacactttcacggtggagttac
aagttcaattctgtacgagctat

>KR296692.1 Salmonella phage 38, complete genome
1-1tRNA-Ser(gct)c[17952,18040]
ggaaggttggccgagaggtttaagggactcgactgctaatacgagtggggc

ttttagccccgaaggttcgaatccttcaccttcgccca
1-2tRNA-Tyr(gta)c[18117,18200]
gtgagtggtggcagagcggtcgaatgcaggagactgtaaatctccccgtaa
cagcgcgggtggttcaaattccatccactcacacca
1-3tRNA-Asn(gtt)c[18955,19030]
gacgatgtagttcagtcggtagaacggcggctgttaaaccgtatgtcgc
aggttcaagtcctgccatcgtcgcca
1-4tRNA-Met(cat)c[19443,19517]
ggcccgtagctcagtggttagagcagtcgactcataatcgattggtcgct
ggttcaagtcagccagggtcacca

>KF006817.1 Mycobacterium phage Breeniome, complete genome

1-1tRNA-Ser(gct)[30286,30369]
ggagggtgagcatcaggtgatgcagcgagattgctaattccgtacggttaa
ccaccccgtaggttcgaatcctcctccctccgc
1-2tRNA-Leu(cag)[30562,30637]
gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt
gtgagttcgaatctcaccgggagtac
1-3tRNA-Leu(gag)[30757,30831]
gtctctgtaggcaaatcgaaaagccgccatcttgagggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[30832,30905]
gccgtggtaggcatctggcgagccgccgagttcaagtttcggtgtttgc
gggttcgaatcccgcacgggtac
1-5tRNA-SeC(tca)[66355,66451]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgaccggaacatcccgttaacgcgaccagggcc
1-6tRNA-Pro(tgg)[90723,90795]
cggggtgtagttcagtggaagagcgttggttgggaccaagatgtcgca
ggttcgaatcctgtcaccccgac
1-7tRNA-Trp(cca)[90812,90887]
tggggtgaagccgatctggaaggcagcggcttccaaagcgtctcatagc
gggttcgaatcccgtcacccctgcca
1-8tRNA-Tyr(gta)[90889,90975]
gccgcacatgcccaactggtgttgggagcaggtgtaaccctgtggcct
tcgggacggtgaggttcgattcctcagtcggtacca
1-9tRNA-Pyl(cta)[92084,92156]
gcaccatttgctcaatggcagagcggcggcttctaaaaccgtagtgccg
gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[92306,92380]
agcgggtgtagagcagctaggtagctcgccgggtcataaaccggaggacg
cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[92507,92578]
gcgccttggcggaatggctacgtgctcggtgcaacccgagttatcccg
gttcgactccgggaggcgctc

1-12tRNA-Glu(ctc)[92583,92657]
gggccgttgagtagatggatatctcgccaccctctcaaggtggagatca
cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[92659,92732]
gtggccgtagttcagccggtagaacgctgggttgatcccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[92894,92968]
gggcctgtagctccaattggtagagcagcatcctgcaagatgacggctg
tcggttcgaatccgacctggtccac
1-15tRNA-Phe(gaa)[93158,93230]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgggccga
ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[93236,93309]
gtccgttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[93428,93500]
gccttcgtagctcagtggttagagctgtcgcctcttaagcgataggtcgtt
gggtcgaatccagccgggggcac
1-18tRNA-Glu(ttc)[93505,93581]
ggtcgggtcggctcgtggtatggccagtcggattttcactccggacatt
cgcgggttcaattcccgctcccgatcgc
1-19tRNA-Gly(tcc)[93661,93733]
gggggtgtggccgaatggctcaggcaccagatttcactctggctacgca
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[93793,93867]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cggttcgagtcggacagcagcccc
1-21tRNA-Thr(tgt)[93868,93940]
gcctctgtgtccagcggcacggacatccgccttgtaagcggaggacccc
cgttcgatccgggtagaggctc
1-22tRNA-Thr(ggt)[94348,94420]
gctgggttagctcagtggttagagcgttcctcggtagcggaaggcccg
ggttcaatccccgactcagctc
1-23tRNA-Gly(gcc)[95743,95816]
gcgaaggtagctcagctggttagagcgccaccttgccaaggtggaggtcgc
gggatcgtaacccgttcttcgctc
1-24tRNA-Asp(gtc)[95820,95892]
ggccctgtagctcagaggaagagcgccggtctgtcgaatcgagggtcgcg
gtatcgtaatccgtcagggtcgc
1-25tRNA-Met(cat)[95952,96024]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-26tRNA-Ile(gat)[96030,96104]
gcctgttagcggactggctgtccgatccaagctgataactggcgtaagc

ggtgttcgattaccgagcaggtag
1-27tRNA-Arg(acg)[96198,96270]
gcctctatggtccaacggatatgacccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-28tRNA-Val(gac)[96313,96385]
gtccgtgtagctcagggtagagcgctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-29tRNA-Arg(cct)[96559,96632]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-31tRNA-Gln(ttg)[97173,97248]
tggggtaggtggcaatctggcagtcgcccgactttgactccggagggt
gcaggttcgagtcctgctaccccatc
1-32tRNA-Arg(tct)[97252,97327]
gccctttagctcagtgacagagcggcgagcttctacctcgccggccgg
gagttcgaatcctcaccaggggcacca
1-33tRNA-Gln(ctg)[124745,124819]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[124826,124901]
tgggggtgccgtaatcaggcaaacgagcggactgtaatccgccctgc
aggttcgaatcctgccaccccagcca

>KR296685.1 Salmonella phage 21, complete genome

1-1tRNA-Leu(tag)c[21556,21628]
tggcgattgatggaattggtatcctgccgtccttagaagtcggataaggg
ggttcaagccccctgtgccacc
1-2tRNA-Gln(ttg)c[22981,23054]
tgggaagatggtgtaggattggtagcacacgtgtctttgaaaaccgtagti
caggttcaagtctgatcttcccc

>KR296684.1 Salmonella phage 19, complete genome

1-1tRNA-Tyr(gta)[91411,91500]
gtgtcgttagaccgtagggtagcggggcagactgtaaatctgtggctc
gaaagggttcgggtagttcgactctatcacggcacacca
1-2tRNA-Ile(gat)[91508,91583]
gggagtatagctcagttagtagagcgctcgaccgataatcgagaggtcgc
aggagcaaagcctgctactcccacca
1-3tRNA-Glu(ttc)[92351,92426]
gtcctatcggctaagtggataggcccgagactttcaatctggaaatcc
gagttcgattctcggtaggagtcca
1-5tRNA-Trp(cca)[92512,92588]
agggacttagcacaattggctagtgcagcggattccaaatccgcaggttc
tgggttcgaatccaaggtccctgcca
1-6tRNA-Ser(tga)[92594,92668]
aggaggatggtgtaattggttagcacacgggtcttgaaatccgtagttca

ggtcaagtcctgatcttctgcc
 1-7tRNA-Ser(gga)[92901,92992]
 ggtggaatggtcgagcggtaaagacagcaccttggaaggtgctggccc
 cctcacaggggtccgtaggtcgaatcctacttccaccgcca
 1-8tRNA-Ser(gct)[92998,93091]
 ggaagattaaccctaatacaggaaggatctcttgctaaagagacagta
 gccccggaagggtgtgtcagttcaaatctgacatcttctcc
 1-9tRNA-Ser(tga)[93092,93180]
 ggagagcagggcgcgtggtgcgtaatccggttgaacccggacccatcgt
 agcgatacggtagacagttcgattctgtgtctctctcca
 1-10tRNA-Asn(gtt)[93328,93412]
 gacgagttggcctagtgttggcggcggcctgtaagccgtgagtga
 actcaaggaaggttcaaatcctcactcgtcgcca
 1-11tRNA-Asp(gtc)[93420,93495]
 ggggatattggtattagcggtaaacatactggcctgtcacgccggagtcac
 ggggtcgaatccggttatctctgcc
 1-12tRNA-His(gtg)[93499,93570]
 tgggaaattagttaagtggtataatggcctctggtgctgaggcgtctct
 gttcgattcaggaattcccgcc
 1-13tRNA-Pro(tgg)[93691,93766]
 cagtcgtagcgcagttggttagcgtgggagccttgatgcttcgggtcgc
 aggttcgagtcctgccgggctgacca
 1-14tRNA-Leu(tag)[94013,94088]
 tggcgattgatgaattggaatacgtgccgtccttagaagtcggatttt
 gggggttcgagtcctgtcgcccacc
 1-15tRNA-Phe(gaa)[94209,94284]
 ggggtttagctcagttggttagacacctgattgaagatcagggtgtcgg
 tgggtcgagtcacccggccccacca
 1-16tRNA-Met(cat)[94540,94615]
 tgcgagctagaattctggtgaattcacgagtcataagcttggtcagag
 ggggtcgattccgctgctcgcaacca

>KP054477.1 *Lactobacillus* phage LfeInf, complete genome

1-1tRNA-Ser(gct)c[30472,30562]
 tggagaattacccaagttggtgaaggggcgcccctgctaagggtgtagg
 ccgggaaaccggtgcgagggttcaaatccctcattctccgt
 1-2tRNA-Thr(tgt)c[30637,30709]
 gctaatttagtcaatcggcagagcgctgcctgtaagcaggaggttac
 aagttcgattctgtaattagca

>KJ206559.1 *Staphylococcus* phage 812, complete genome

1-1tRNA-Met(cat)c[14398,14469]
 ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
 ggttcgaatcctgcagagtcca
 1-2tRNA-Trp(cca)c[37617,37688]
 acacccttagtataattagtagtacaagggtctccaaaacccttagtctt

tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[37695,37767]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaacca
1-4tRNA-Asp(gtc)c[37773,37848]
tggctcattgggtgaactggtaacacactgccctgtcacggcagagagt
acgagttcgagctctctatgggtcgt

>LN887844.1 Pseudomonas phage VCM genome assembly VCM, chromosome : 1

1-1tRNA-Gly(tcc)c[69564,69636]
gtgtgtcgtataacggctattatatctggctccacccagaggactaggg
ttcgattccctacacccgcacca
1-2tRNA-Cys(gca)c[69644,69718]
tccttgttggctgaacggctagcggtgattgcaaaccagcattaagtg
ggttcaactcccacacaaggctcca
1-3tRNA-Leu(tag)c[69783,69867]
gggttcgtgggtgaactggatacacactagcttagaaactagcgccga
aaggattgaggatcgtgaccctccgagcctacca
1-4tRNA-Ala(tgc)c[70116,70191]
gggcacatgtccaagggatggcgagtttccttgcacgcagactgtgaa
gagttcgattctcttgtctccacca
1-5tRNA-Pro(tgg)c[70385,70458]
ctctcggaagcgttacggtagcgtacttgtttggaacgaagtgcggtg
gttcgactccaccccgagtgacca
1-6tRNA-Asn(gtt)c[70593,70669]
aggcaatgatctgactaggttggctctgactgttaatcacaagatgg
gaggttcgaatcctctattgcctgcca
1-7tRNA-Ile(gat)c[70821,70894]
tgctcgttagcatagtggtaatgcaatcggctgataaccgatagagaggt
gttcaattcactacgagcaacca
1-8tRNA-Arg(acg)c[70901,70975]
agtcgcttggccgattggattaggcaaaggtctacgaagccttttagagt
ggttcgatcccactagtactacca
1-9tRNA-Asp(gtc)c[71118,71193]
ggctcattagtgttagcggtagcacgcttgactgtctatcaggaaggag
gattcgaattccctatgagccgcca
1-10tRNA-Glu(ttc)c[71198,71274]
gtcctccatcgtctatctggctaggttctgactttcaatcagggaac
aggggtcgaatccctgtgggagtacca
1-11tRNA-Arg(tct)c[71504,71580]
ggccttatagtgaagggaattagcacatcatccttctaagttgatagac
ttggttcgaatccaagtagggctacca
1-12tRNA-Gln(ttg)c[72332,72406]
ggccggttggcgaagtgggaacgcagcgagctttgacctcgttatgagta
ggttcgatccctacaccggacgcca

1-13tRNA-Val(tac)c[72754,72827]
gcctcattagttcaatgggagaacgccatccttacaaggtggctacggtg
gttcgattccatcatgaggcacca
1-14tRNA-Leu(caa)c[72836,72922]
ggggatatggcggaactggtattcgcagcaggctcaaaccctgtgggccg
tgaggccatgtaggttcgactcctattatccccacca
1-15tRNA-Ser(aga)c[72927,73016]
ggcgagttgtagagtgacgattgctctagtttagaaaactagcgagtc
agaaatggctccgtgggttcgaatcccacactcgctcca
1-16tRNA-Ser(gct)c[73265,73354]
ggcgtattggtcgagaggctgatgacagcgggttgctaaccctactctc
cgaaaggggagcgaaggttcgaatccttcattcgccacca
1-17tRNA-Lys(ttt)c[73360,73434]
tgagcgaagctaagcggtcaggcatcggacttttaatccgaacatggtg
ggttcgattcccactcgtccaacca

>KR422352.1 Escherichia phage APCEc01, complete genome

1-1tRNA-Met(cat)[110541,110614]
ggccctgtagctcaatggtagcagcagtcacctcataagggaaaggta
ccagttcgaatctggtctgggtca
1-2tRNA-Arg(tct)[110621,110697]
cgaggcatagctcaattgtatagagcaacggacttctaaccgtaggttg
aaggttagaatccttctgtctcgacca

>KJ010547.1 Bacillus phage Bp8p-C, complete genome

1-1tRNA-Met(cat)c[106842,106913]
gggtctttagcttaaaggtaaagcaatcagctcataactgataggatagg
agttcgagtccttaggacca
1-2tRNA-Tyr(gta)c[109352,109435]
gggatagcgctaacttgagagttaggcgagactgtaaatctcgtgtcg
gatcactgagtggttcgaatcccactgtcca
1-3tRNA-His(gtg)c[109549,109619]
gagaatgtagcttaacggtaaagcgtgggacgtgactccagttatccaa
gttcgagtccttggtattctca
1-4tRNA-Gly(tcc)c[109630,109703]
gtggtcttagtttaacggtagaattgctggctccaaccagcggtaagg
gttcgactcccttagaccatacca
1-5tRNA-Met(cat)c[110832,110905]
tacgatgctgaggggtcggtaaccgacgaggtctcataagcctgttttag
caagtcaactcttccttagcaa
1-6tRNA-Phe(gaa)c[110979,111053]
tggaactgtagctcagtcggttagagcaggggctgaaaatccctgtgtcg
gaggttcgaatccttctcagtcctat
1-7tRNA-Asn(gtt)c[111433,111506]
ttgtcgataactcaatggtagagtgtgactgttaatacaagaagttgt
aggttcgagtcctactacgacagt

>KU297675.1 Pseudomonas phage PaoP5, complete genome

1-1tRNA-Gln(ttg)[21140,21213]
tgccgcttcgttcaatggtaggacgccagacttgaatctggagatgatg
gttcgatcccatcagtggtgccca
1-2tRNA-Arg(tct)[21419,21494]
gctcgtatagtgtaatggacagcacacggcttctaagccgtaaggtct
aggttcgaatcctagtatgagcgcca
1-3tRNA-Leu(tag)[22310,22394]
gacctgtggtggaattggtatacacatcagctctagaaactgacgccga
gaggattgaggggtcaagtcctccggggccacca
1-4tRNA-Ile(gat)[22605,22680]
agccggaatagctcaattggtagagcaccgaccgataatcggtggtga
aggttcaagtccttctctggctacca
1-5tRNA-Asp(gtc)[22690,22768]
ggccattagctcagctctggactagagcaagcccctgtctagggaaggt
cgtcgggttcgaatccgacatgggtcgcca
1-6tRNA-Met(cat)[22869,22943]
agcgttaagactggctggagctgtcactcggctcataaccgagcacaaat
ggttcgattccacctctcgttcca
1-7tRNA-Cys(gca)[23179,23254]
cccgcggtggccgagaggttaggcggcggttgcaaatccgtctcacat
cggttcaaatccgatacgcggtcca
1-8tRNA-Asn(gtt)[23265,23340]
tgggatgtagctcagttggtagagcaggagctgttaactctcaggtcgc
aggttcgagccctgccgtcccagcca
1-9tRNA-Pro(tgg)[23404,23481]
ctcctcgtagctcagctcgttagagtgctggatttggaatccgaaggtc
gaaggttcaaatccttcgggggtgacca
1-10tRNA-Gly(tcc)[23653,23728]
gcgggtatagctcagttggtagagcgtctgcctccaagcagttcgtcgt
cgggtcagtcctctatccgtcca
1-11tRNA-Phe(gaa)[23735,23810]
gcatttgaagctaactaggtagaagcgtgggttgaaattccagaggact
tggatcgttaccagcagatgcacca
1-12tRNA-Glu(ttc)[23817,23892]
gcagttatagattaattggttaaatgccagacttcaatctggtgttcc
gggttcgatccccgtaactgctcca
1-13tRNA-His(gtg)[23953,24027]
gtggagattgttagcccgatgctgccttcggtgtgacccgattgtt
ggggttcgagtcctccctccaacc
1-14tRNA-Thr(tgt)[24214,24288]
gccctttaagcatttggtgatgcaccgcttgaacccggcgaattc
tgttcaaatcaggaatggggcacca

>KU130126.1 Pseudomonas phage vB_PsyM_KIL1, complete genome

1-tRNA-Ser(tga)[16011,16105]
ggcttggaagccgagatggcctagcggcagcggcttgaaaaccgaggg
ttcacggaagtggacgtgtgagttcgagctcacccaatccgcca
1-2tRNA-Met(cat)[16112,16188]
tggccttagcataattggtaatgcaatcaactcataattgataagata
cgagttcaagtctcgtggggccaacca
1-3tRNA-Arg(tct)[16759,16835]
atctccatagctcaactggacagagcaagggtttctcacccaaggttg
agggttcgaatccttctggggatacca
1-4tRNA-Thr(tgt)[17460,17535]
gccggaatagcacaattggtagtcagtcgccttgtaagcgaaaggtga
gggttcaagtcctttttcggcacca
1-5tRNA-Arg(acg)[17725,17799]
agtcgcttggccgattggattaggcaaggccacgaagcctgctagagt
ggttcgactccactagttactacca

>KT887559.1 Pseudomonas phage phi3, complete genome

1-tRNA-Met(cat)[2854,2930]
gggcctatagctcagtcggttagagcagaggactcataatccttgggtcc
acggttcgagtcggtgtggggccacca

>KU497559.1 Pseudomonas phage K5, complete genome

1-tRNA-Gln(ttg)[22291,22364]
tgccgcttcgttcaatggtaggacgccagacttgaatctggagatgatg
gttcgatcccatcagtggtcgcca
1-2tRNA-Arg(tct)[22570,22644]
gctcgtatagtgaacggatgcacaacggtcttctaagccgtaaggtcta
ggttcgaatcctagtatgagcgcca
1-3tRNA-Lys(ttt)[22652,22728]
tggacggaagctaaagtggataggcatctggcttttaaccagatttatag
tgagttcgagtcacccgttcaacca
1-4tRNA-Leu(tag)[23003,23087]
ggccctgtggtggaattggtatacacatcagtccttagaaactgacgccga
gaggattgagggttcaagtcctccggggccacca
1-5tRNA-Ile(gat)[23298,23373]
ggccagatagctcaattggtagacaccgaccgataatcggtggttga
aggttcaagtccttctctggccacca
1-6tRNA-Asp(gtc)[23383,23461]
ggcccattagctcagtcctggactagagcaagcccctgtctagggaaggt
cgccggttcgaatccggcatgggtcgcca
1-7tRNA-Cys(gca)[23718,23793]
ccctcgttggccgagaggatcaggcagcagattgcaaatctgccatacat
cggttcaaatccgatacagaggtcca
1-8tRNA-Asn(gtt)[23803,23879]
tccgtacggcccatcaaggcgtggggctcggtgttaaccgaaacgcgc
taggttcgattcctaggtacggagcca

1-9tRNA-Pro(tgg)[23942,24019]
 ctctcgtagctcagctcgttagagtgctggatttggaaatccgaaggctc
 gaaggttcaaactcctccgggtgacca
 1-10tRNA-Gly(tcc)[24027,24103]
 gcgggttctgtatagctcgttattattcttggcttccaccaagagact
 aggggtcgaatccctaagccccgacca
 1-11tRNA-Phe(gaa)[24166,24241]
 gcgtctgaagctaactaggtagaagcgtgggtgaaattccagaggact
 tggatcgttaccagcagatgcacca
 1-12tRNA-Glu(ttc)[24248,24323]
 gcagttatagattaattggttaaatgccagactttcaatctggtgtcc
 gggttcgatccccggttaactgctcca
 1-13tRNA-His(gtg)[24384,24458]
 gtggagattgtgtagcccgatgctgccttccggtgtgacccgattgtt
 ggggttcgagtcctccctccaacc
 1-14tRNA-Thr(tgt)[24645,24719]
 gcccttaagcatttatggtgatgcaccggcttgaacccggcgaattc
 tgttcaagtcaggaatggggcacca
 >LC121084.1 Ralstonia phage RSP15 DNA, complete genome
 1-1tRNA-Leu(caa)c[85007,85091]
 ggggatgtggggaattggtagaccacactgactcaaaatcaggcgtga
 aaggcgtgtgggttcgagtcaccatccctacca
 1-2tRNA-Gly(tcc)c[85106,85183]
 gcgggtataactcagtcgggtcagagtgacgctccaagctgttcgtc
 atcgggtcaaactccgattaccgctcca
 1-3tRNA-Ile(gat)c[85392,85468]
 ggtggattagctcagttggttagagcatcgttgataaggcggggcca
 taggttcaagtcctatatccaccacca
 1-4tRNA-Thr(tgt)c[85589,85664]
 gccacgttagcacaattggtagtcagcggatttgaatccgaaggttag
 ggattcgatttctctacgtggcacca
 1-5tRNA-Lys(ttt)c[87081,87157]
 gagggtgtagctcaattggttagagcaacggacttttaatccgtaggttg
 aggggtcgattccctccgcccacca
 1-6tRNA-Trp(cca)c[87407,87481]
 gggcggatagatataatggctattatgtcggtttccaagtccgaagattga
 ggttcgattccttgtctgccgcca
 1-7tRNA-Arg(tct)c[87489,87564]
 gcggcattagctcaatggatagagcaagggtttctactccctaggtgt
 ggggtcaagtcctgcatgccgcca
 1-8tRNA-Gln(ttg)c[90562,90637]
 cggggtgtagttcagttggtagaacagcgggtttgatccgtaggtcgt
 aggttcgagtcctaccgcccctgcca
 1-9tRNA-Met(cat)c[90734,90809]

ggtaatatagttcagttggtagaacagcagattcataatctgtaccgcgc
 tggftcaaatccagctattaccacca
 1-10tRNA-Val(tac)c[91136,91210]
 gggaaattagctcagaggcagagcagcgcccttacaaggcgaaggtcggg
 gtttcgatatcctcatttctacca
 1-11tRNA-Asn(gtt)c[91439,91515]
 tccgtagtagctcagtcggtagtagcggttcgctgttaagcgaaggtcg
 gtggatcgtagccaccctacggagcca
 1-12tRNA-Leu(tag)c[92265,92350]
 gcgcgagtgatggaattaggtagtcttctgtgccttagaagcatgggcct
 tcgggcgtgtcgggtcagtcggaccttgcgcacca
 1-13tRNA-Phe(gaa)c[92665,92740]
 gcgcgggtagctcagttggtagagcgccagcctgaagagttgggcgtcgg
 aggttcgatcccttccccgcgcacca
 1-14tRNA-Tyr(gta)c[92941,93022]
 ggggttgatgctctaattggtaggcagcgggctgaaccccgtaggcttcg
 gcaagtaggttcgatccctactcaaccacca
 1-15tRNA-Pro(tgg)c[93034,93108]
 ccgtggttagcctagaggtcaggcacttgattgggatcaagacgacgaa
 ggttcgatcccttcatcacggacca
 1-16tRNA-Asp(gtc)c[93341,93416]
 ggtccaaaagtgttatggacgcacacatgcctgtcacgcatgtagagt
 gggatcgtagcccccctggaccgcca
 1-17tRNA-Cys(gca)c[93434,93507]
 gtgagttggccgagtgactaggcgataggctgcaaccctatctaggaaa
 gttaaaatctttcaattcactcca
 1-18tRNA-Glu(ttc)c[93924,94002]
 gtccgcatagtttacggtaggttagaacacatgcctttcacgcatgtaa
 atcgggttcgaccccgatgtggacgcca
 1-19tRNA-Ser(gct)c[94108,94198]
 ggaagattggcagagtgccgattgcagcgggtgctaaccgtagggtc
 tgaataaggctccataggttcaaatcctatatcttccgcca
 1-20tRNA-Ser(tga)c[94946,95038]
 ggaagctttagccgagatggcctagcggcagcggtcttgaaccgaagg
 ctccgaaagggtgtgtgagttcgagttcacagcttccgcca

>KU253712.1 Bacillus phage Eldridge, complete genome

1-1tRNA-Asn(gtt)[31289,31363]
 tcctccttagccaagtggtaaggcatcacactgttaatgtgactatcgca
 agttcgaatcttcaggaggagcca
 1-2tRNA-Trp(cca)[31366,31439]
 tatcggctagtgtaatggtagcacagaggttccaaaacctttagtctg
 ggttcaaatcctagggtggtgtc
 1-3tRNA-Met(cat)[31833,31904]
 atcttttagctcagtggttagagcgcccactcatattcggaaggtcgtt

ggttcaaaccaaccagagata

>AB930182.1 Bacillus phage SPG24 DNA, contig00001 sequence

1-tRNA-Ser(gct)[108723,108811]

tggataggtaccaagcggtaaagggctctggttgctaaccagatagtag

gctgaggtctagcggaggttcgaatcctcctatccgt

1-2tRNA-Asn(gtt)[109047,109120]

ttgtcccatagctcaatggtagagcgcccgactgttaatcggaaggtgc

tggtcgagcccagctgggacagt

1-4tRNA-Asp(gtc)[110903,110976]

tggctccatagtcagcggttaacacgcccgcctgtcacgtgggtagcac

gggttcgaatcccgttgagccgt

1-5tRNA-Tyr(gta)[111142,111225]

gggtgagcggtaacgttgagagttacggcagactgtaaactgttcctt

tcggggtagagtgtcgaatcactccttacc

>KX130861.1 Shigella phage SHFML-11, complete genome

1-tRNA-Arg(tct)c[16071,16147]

cgaggcatagctcaattgtatagacaacggacttctaaccgtaggttg

aaggttagaatccttctgcctcgacca

1-2tRNA-Met(cat)c[16858,16929]

ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt

ggtcaattccaccaggcca

1-3tRNA-Thr(tgt)c[16936,17008]

gctgatttagctcagtaggttagacaactcacttgaatgagaaggtcgg

cggttcgattccgtcaatcagca

1-4tRNA-Ser(tga)c[17015,17103]

tggaggcgtggcagagtggttaatgcaccggtctgaaaaccggcagtc

gctccggcgactcataggtcaaactcctatcgctccgt

1-5tRNA-Pro(tgg)c[17104,17178]

cttcgttagctcagtttgtagagcgtctgcttgggagcagaatgtcg

caggttcaaatcctgcccgagac

1-6tRNA-Gly(tcc)c[17191,17262]

gcggatatgtataatggtattacctcagactccaatctgatgatga

gttcgattctcattatccgtc

1-7tRNA-Leu(taa)c[17269,17355]

gcgagaatggtaaattggtaaagacacagcacttaaaatgctgcggaat

gatttccttggtggttcgagtcctcctctctac

1-8tRNA-Gln(ttg)c[17356,17429]

tgggaattagccaagttggaagcatagcacttgactgctagatgcaa

aggttcgagtccttattccagc

>KX397366.1 Erwinia phage vB_EamM_ChrisDB, complete genome

1-tRNA-Trp(cca)[977,1052]

agggaagtagctcagcaggcagagcgctggtctccaaaaccagatgtcgc

aggttcgattcctgtcttccctgcca

1-2tRNA-Cys(gca)[1369,1444]

ggggcaatggctcgagcggtcaggcgctagattgcaaatctggattacgg
 gggttcaattccctcttggccctcca
 1-3tRNA-Tyr(gta)[3038,3123]
 ggcgcggtactcaagcggtaacgagagcagactgtaaatctgttgccct
 cgggcttcgtaggttcaaatcctccctcgccacca
 1-4tRNA-Gln(ttg)[3130,3204]
 aggggtatagccaagcggtaagggccagggtttgatccctgtatgctct
 ggttcaaatccagatgcccctcca
 1-5tRNA-Ile(gat)[3211,3287]
 tgtctcgtagctcagttggtcagagcgtcgctgataagcgggaggtca
 gtggttcaagtccactcgagacaacca
 1-6tRNA-Met(cat)[3292,3367]
 ggttctgtagctcagtcggtagagcacgccactcataatggcgcggtcgt
 tggttcgataccagccggaaccacca
 1-7tRNA-Glu(ttc)[3573,3648]
 tctcccatcatctagcgggtctaggatcgccgcctttcgagcggttaaccg
 gggttcaaatccccgtgggagaacca
 1-8tRNA-His(gtg)[3918,3994]
 gtgtacgtagttcagttggttagaattctggcttgtagcgtcggaggtcg
 agggttcaagtcctccgtacacccca
 1-9tRNA-Asp(gtc)[4000,4075]
 agtgccgtagtcgagtggttaagacgtcccctgtcacgggagagatcgt
 gggttcaaaccatcggcactgccca
 1-10tRNA-Ser(gct)[4081,4168]
 ggagaattgaccgagaggccgaaagtgtcccctgctaaggagtggtcc
 ttagggggccgaaggttcgaatccttcattctccgcca
 1-11tRNA-Asn(gtt)[4446,4522]
 ggttccatagctcagttggttagagcggctgcctgttaagcagtaggtcc
 ctggttcgagtcaggtggtaccgcca

>KR269720.1 Klebsiella phage PKO111, complete genome

1-1tRNA-Thr(tgt)c[85,160]
 gccgatttagctcagctggttagagcgcttcacttgtaataagatgtcgc
 ggggttcgactcctgcaatcgccacca
 1-2tRNA-Leu(taa)c[261,345]
 gcatcgatgggtggaactgggtatacacatagcactaaaatgctacgccgc
 aaggattgagggttcgaatccctctcggtgcacca
 1-3tRNA-Arg(tct)c[350,426]
 cggggcatagctcagctggatagagcagcggacttctaaccgcaggtcg
 aaggttcgaatcctctgcctcgacca
 1-4tRNA-Met(cat)c[2039,2113]
 ggccctgtagctcaatggttagagcacgcaactcataattgctagtttct
 ggttcgagtcaggctgggtcacca
 1-5tRNA-Pro(tgg)c[3381,3457]
 ctccgtatagctcagtcggttagagcgtccatttgggatggagaggtcg

aatgttcgagtcattctatggagacca
 1-6tRNA-Gly(tcc)c[3463,3537]
 gcatccatcgtatagcggatattatgtctggctccaccagaagatagg
 agttcgattctccttggatgctcca
 1-7tRNA-Trp(cca)c[3543,3617]
 aggttcttagtataacggctattatgctgggctcaaaccagtgatgag
 gggtcgattccttcagggcctgcca
 1-8tRNA-Ile(gat)c[3624,3699]
 gggagtagtagctcatttggtagagctctcgaccgataatagagcggtag
 tggttcgagtcagttactcccacca
 1-9tRNA-Ser(tga)c[3766,3850]
 ggagagtagcgtagtggttagcaaaccggacttgaaatccgggccatcgg
 aaacggtagagggttaactccttactctccgcca
 1-10tRNA-His(gtg)c[3948,4023]
 gtgtcgtagttcagttggtagaaccgaggtgtgatcctcgatgtcac
 ggattcgaattccgtcgccacccca
 1-11tRNA-Gln(ttg)c[4119,4193]
 tgaatcatagccaagttggtaggcagtaggtttgatcctacgatccct
 gggtcgagtcagggtggtcagcca
 1-12tRNA-Met(cat)c[4200,4276]
 tgcggagtaacttcagttggtagaatgtgggctcatatcccacacgcg
 caggttcgattcctgcctccgcctcca
 1-13tRNA-Asp(gtc)c[4438,4513]
 ggacctatagtttcagcgggtaaaatactgcctgtcacgcgagagtcac
 ggattcgaattccgttaggtccgcca
 1-14tRNA-Asn(gtt)c[4767,4851]
 gggctggtggctgagagggaagcgacggactgtaatccgtgtcagaaa
 tgactaggcaggttcgatactgcacggcccgcga
 1-15tRNA-Lys(ttt)c[4857,4933]
 gggatactagctcagttggttagagcaccggactttaatccgggtgtcc
 gaagttcgagtcctcggtgtcccacca
 1-16tRNA-Tyr(gta)c[4940,5026]
 ggggagttagaccgtagggtagcgggacagactgtaaatctgtgtctca
 aaaggctcgagtggttcgactccattactcccacca

>KU878088.1 Bacillus phage AR9, complete genome

1-1tRNA-Asn(gtt)[208904,208977]
 ttccccttagctcaatggttagagcatctcactgttactgagatggttgc
 aagttcgagtccttcagggggagt

>KX147229.1 Bacillus phage Belinda, complete genome

1-1tRNA-Asn(gtt)[33227,33300]
 gtgctttagctcagtcggttagagctggtggctgtaaccactgtgtcgt
 aggttcgattcctacctagcacgc
 1-2tRNA-Glu(ttc)[33307,33383]
 gtgcattggtgaaattggctaacacactcggttctaccgaggattta

ggggttcgagccccctatgcgattcca
1-3tRNA-Asp(gtc)[33388,33461]
tggggatatagtgtagaggtaaacacgcacggctgtctaccgtgaagcac
gagttcgaatctcgttatcctcgt

>KX009778.3 Escherichia phage UFV-AREG1, complete genome

1-1tRNA-Asn(gtt)c[68817,68891]
ggatgtgtagctcagtggttagagcagttgactgttaataatgggtccat
ggttcgaatccatgcatgtccgcca
1-2tRNA-Tyr(gta)c[68896,68982]
ggggagtatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-3tRNA-Met(cat)c[68992,69068]
ggccctgtagctcaatggttagcagcagtcacctcataagggaaggta
ccagttcaaatctggtctgggtcacca
1-4tRNA-Thr(tgt)c[69070,69145]
gctgatttagctcagtaggttagagcacctcactgtaatgaggatgtcgg
cggttcgattccgtcaatcagcacca
1-5tRNA-Ser(tga)c[69147,69235]
tggaggcgtggcagagtgggttaatgcaccggtcttgaaccggcagtc
gctccggcgactcataggttcaaactctatcgctccgt
1-6tRNA-Pro(tgg)c[69236,69310]
ctccgtgtagctcagtttgtagagcgctgattgggatcaggagggtcc
aaggttcaaatccttgtatggagac
1-7tRNA-Gly(tcc)c[69902,69975]
gcggatatcgataatggcattacctcagacttcaatctgatgtga
gttcgattctcattatccgtcca
1-8tRNA-Leu(taa)c[69982,70068]
gcgagaatggtaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttggtggttcgagtccttctctgtacca
1-9tRNA-Gln(ttg)c[70069,70142]
tgggaattagccaagttgtaaggcatagcactttgactgctagatgcaa
aggttcgagtcctttattcccagc
1-10tRNA-Arg(tct)[169204,169280]
cggggtgtaactcaattgtatagtagcggctcttaaaccgcaggtta
aaggttagaatcctttaccctggcca

>KU761955.1 Pseudomonas phage phiMK, complete genome

1-1tRNA-Thr(tgt)c[67352,67426]
gccctttaagcatttatggtgatgcaccggcttgaacccggcgaattc
tgtcaagtcaggaatggggcacca
1-2tRNA-His(gtg)c[67613,67687]
gtggagattgtgtagcccgatgctgcctttcggtgtgacccgattgtt
ggggttcgagtcctccctcaacc
1-3tRNA-Glu(ttc)c[67748,67823]
gcagttatagattaattggttaaatgccagactttcaatctggtgtcc

gggttcgatccccgtaactgctcca
1-4tRNA-Phe(gaa)c[67830,67905]
gcatttgaagctaactaggtagaagcgctgggttgaaattccaggagact
tggatcggtaccaagcagatgcacca
1-5tRNA-Gly(tcc)c[67912,67987]
gcgggtatagctcagttggtagagcgtctgcctccaagcagttcgtcgt
cggttcgagtcgctctatccgctcca
1-6tRNA-Pro(tgg)c[68159,68236]
ctcctcgtagctcagttcggttagagtgctggatttggaaatccgaaggtc
gaaggttcaaatacctccgggtgacca
1-7tRNA-Asn(gtt)c[68299,68374]
tgggatgtagctcagttggttagagcaggagctgttaactctcaggtcgc
aggttcgaaccctgccgtcctagcca
1-8tRNA-Cys(gca)c[68385,68460]
ccccggttgccgagaggtttaggcggcgattgcaaatacgtctcacat
cggttcaaatacgtacgcggctcca
1-9tRNA-Asp(gtc)c[68916,68994]
ggccattagctcagttcggttagagcaagcccctgtctagggaaggt
cgccggttcgaatccggcatgggtcgcca
1-10tRNA-Ile(gat)c[69004,69079]
ggccagatagctcaattggttagagcaccgaccgataatcgggtggttga
aggttcaagtccttctctggccacca
1-11tRNA-Leu(tag)c[69290,69374]
ggcctgtggtggaattggtatacacatcagtttagaaactgacgccga
gaggattgagggttcaagtcctccggggccacca
1-12tRNA-Arg(tct)c[69732,69806]
gctcgtagtataacggatgcacaacggtcttctaagccgtaaggtcta
ggttcgaatcctagtagagcgcca
1-13tRNA-Gln(ttg)c[70012,70085]
tgccgcttcgttcaatggttagagcggcagacttgaatctggagatgatg
gttcgatcccatcagttggctgcca

>KU760857.1 Salmonella phage SJ46, complete genome

1-1tRNA-Met(cat)c[98316,98391]
ggccctttagctcagttggttagagctggcgactcataatgcacgggtcac
cggttcaagtcggtaggggcca
1-2tRNA-Thr(tgt)c[99544,99619]
gccggtttagctcagttggttagagcgctgccttgaagcaggatgtcag
cggttcgagtcggttaatcgccacca
1-3tRNA-Asn(gtt)c[99622,99697]
gatggttagctcagcggttagagcggttgactgttaatcaacgggtcga
tggttcaaatacctccaccatcgcca

>KU867876.1 Escherichia phage vB_EcoM-UFV13, complete genome

1-1tRNA-Arg(tct)c[69811,69886]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt

aggttcgatccctactgcctcgacca
 1-2tRNA-Asn(gtt)c[69891,69965]
 ggatgtgtagctcaatggcagagcgatcgctgtaagcgattggtata
 ggttcgaatcctatcacgtccgcca
 1-3tRNA-Tyr(gta)c[69970,70056]
 ggggagttatcccgtagaggtagcgggtggactgtaaatccattgtcat
 tgcgactcgggtggttcgactccatcactccccacca
 1-4tRNA-Met(cat)c[70069,70143]
 ggccctgtagctggaaggtcaagcaagcgactcataatgccagatggt
 ggtcaattccaccagggccacca
 1-5tRNA-Thr(tgt)c[70145,70220]
 gctgatttagctcagtaggtagagcaactcacttgtaatgagaaggtcgg
 cggttcgattccgtcaatcagcacca
 1-6tRNA-Ser(tga)c[70226,70315]
 ggaggcgtggcagagtgtttaatgcaccggtcttgaaaaccggcagtcg
 ctccggcgactcataggttcaaatcctatcgctccgcca
 1-7tRNA-Pro(tgg)c[70317,70391]
 ctccgtgtagctcagtttggtagagcgctgattgggacaggagggtcc
 aaggttcaaatccttgatggagac
 1-8tRNA-Gly(tcc)c[70402,70475]
 gcggatatcgataatggtattacctcagacttccaatctgatgtga
 gttcgattctcattatccgtcca
 1-9tRNA-Leu(taa)c[70481,70567]
 gcgagaatggtcaaattggtaaaggcacagcacttaaatgctgcggaat
 gatttccttgggttcgagtcaccacttctcgcacca
 1-10tRNA-Gln(ttg)c[70568,70641]
 tgggaattagccaagttggttaaggcactggatttgattccaggatgcaa
 aggttcgagtcctttattcccagc

>KX397369.1 Erwinia phage vB_EamM_Kwan, complete genome

1-1tRNA-Gly(tcc)[1976,2051]
 gcaggcatagctcagttggtagagcatctgattccaatcagagggtcgt
 cagttcgaacctgactgtctgtcca
 1-2tRNA-Tyr(gta)[2256,2340]
 ggcgggttactcaagcggcaacgagagcagactgtaaatctgttgacttc
 ggtcttcgggtggttcgagtcaccacacgccacca
 1-3tRNA-Glu(ttc)[2346,2420]
 acacccatcgtctagcggtaggaccgctgccttcgagcagttaaccgg
 ggttcaaatccccgtgggtgtacca
 1-4tRNA-Glu(ttc)[2424,2499]
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 gatttcgagtcctcgtcgggaatacca
 1-5tRNA-Trp(cca)[2623,2698]
 agggaagtagttcaattggtagagcgtcggtctccaaaaccggtgttg
 aggttcgagtcctctcttccctgccca

1-6tRNA-Asp(gtc)[2705,2781]
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 cgggttcgaaacccgtcagtcctgccca
 1-7tRNA-Ser(gct)[2787,2876]
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 cgaaagggtaccgttggttcgaatccaacattctccgccca
 1-8tRNA-Asn(gtt)[3253,3328]
 tggatgattgttcagtcggtagaacagtggtgtaatacatatgtcgc
 aggttcgattcctgcatcaccagcca
 >KX397364.1 Erwinia phage vB_EamM_Asesino, complete genome
 1-1tRNA-Trp(cca)[613,688]
 gggggagtagttcaactggtagagcgtcgggtccaaaaccgaatgtgc
 aggttcgagtcctgtctcccctgccca
 1-2tRNA-Cys(gca)[1007,1082]
 ggggcaatggctcagtggttaggcgacgaattgcaaattcggatcaggt
 cgggtcaagtcggcgttgcctccca
 1-3tRNA-Gly(ccc)[3308,3383]
 gcgagtatagctcagctggttagagcatctggttcccaaccagagggtcgt
 gattcgaatctcattactcgtcca
 1-4tRNA-Tyr(gta)[3492,3577]
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 cgggcttcgtaggttcaaatacctccctcgcaccca
 1-5tRNA-Glu(ttc)[3584,3659]
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 gattcaattctccgcaggaacgccca
 1-6tRNA-Asp(gtc)[3815,3891]
 agagccgtagtcgagttggttaagacgcctccctgtcacggaggagatcg
 tgggttcgagcccatcggttctgccca
 1-7tRNA-Ile(gat)[4027,4103]
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 gtagttcaagtctactcagacaacca
 1-8tRNA-His(gtg)[4199,4275]
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 agagttcgagtcctccatacacccca
 1-9tRNA-Ser(gct)[4281,4370]
 ggagaattgtccgagtggtgaaagagctcccctgctaaggagtggtgg
 cgcaagctgcccgaaggttcgaatccttcattctccgccca
 1-10tRNA-Met(cat)[4506,4579]
 aaccggttagcttgaggaaaaagcaccgaccataatcggtttttcac
 tgggtcgaatccagtcacgggttc
 1-11tRNA-Asn(gtt)[4589,4664]
 gactctgtagttcagttggtagaacggatgactgttaattatctcgtcgc
 aggttcgagtcctgccggagtcgccca
 >KU737349.1 Bacillus phage DIGNKC, complete genome

1-tRNA-Asn(gtt)[33193,33266]
gtccttagctcagtcggtagagctggctggttaaccactgtgtcgt
aggttcgattcctacctagcacgc

1-2tRNA-Glu(ttc)[33273,33349]
gtcgcattggtgaaattggttaacacactcggttctaccgaggattta
ggggttcgagccccctatgcgattcca

1-3tRNA-Asp(gtc)[33354,33427]
tggggatatagtgtagaggtaaacacgcacggctgtctaccgtgaagcac
gagttcgaatctcgttctcctcgt

>KX245890.1 *Citrobacter* phage vB_CfrM_CfP1, complete genome

1-tRNA-Met(cat)[51490,51567]
ggcccccttagctcaattggttagagcgaaccctcataagggtgtggtt
ccggttcgagtcacggaaggggccacca

>KX078569.1 *Morganella* phage vB_MmoM_MP1, complete genome

1-tRNA-Met(cat)c[62923,62996]
tgcgagatagtgaagggtctcacagaggttcagccctcgaaacctta
gttcgaatctaggtctcgttcca

1-2tRNA-Glu(ttc)c[63866,63940]
gcacctatcgtctagtggtaggacatcaggtttcaacctggcaaccgg
agttcaattctccgtaggtgtacca

1-3tRNA-His(gtg)c[63946,64021]
gtggccgtaattcagttggtagaatccctgattgtgattcaggcagtcac
cgggtcgaagccggtcggtcacccca

1-4tRNA-Ser(tga)c[64083,64172]
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ggaaaccgttccgtgagttcgaatctcacaccgctgccca

1-5tRNA-Pro(tgg)c[64380,64456]
ctgtacgtagcgcagtcgttagcgtaggtgcttgatgcacgggtcg
gaggttcgaatcctcccgtacagacca

1-6tRNA-Asn(gtt)c[64462,64536]
tgacctatcgataaaggctattacggtaggaccgttaatccacttatcct
ggttcgagtcagggtgggtcagcca

1-7tRNA-Lys(ttt)c[65250,65323]
gcgtcgttagctcagctggttagagcatccgacttttaacggaatgtcg
gtagttcgaatctaccacgacgca

1-8tRNA-Trp(cca)c[65619,65692]
aggtcggtagttcaatggtagaatagcggattccaaatccgaagacgaga
gttcgactcttctcggcctgccca

1-9tRNA-Arg(tct)c[66403,66479]
gcactcttagctcagctggatagagcaacggccttctaagccgtaggtca
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1-10tRNA-Leu(taa)c[66487,66571]
gtctgagtggtggaactggtatacacaggagattaaaatctccgcctt
atggattgtgggttcaaatcccaccttgacacca

1-11tRNA-Met(cat)c[66763,66835]
 ggcccttagcttactggttgaaagctgacgactcataatcgtagagca
 tggttcgattccatgaaggcca
 >KX130863.1 Shigella phage SHSML-45, complete genome
 1-1tRNA-Met(cat)c[55871,55946]
 agttagtggcagagtggttatgcacctccttcatacggagcgactacag
 tggttcaatccactactaactacca
 1-2tRNA-Ile(gat)c[56043,56119]
 gcttcgtagcttagcgatctaaagcactcggctgataaccgagagatcg
 ggggtttaaaccctcccgagtacca
 1-3tRNA-Asp(gtc)c[57205,57281]
 gcgaccgggctggcttgtaatgttactcccctgtcacggagggaatg
 tggttcaatcccatcggtcgcgcca
 1-4tRNA-Asn(gtt)c[57579,57661]
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 acaacgtagggtcgaatcctacacggcccgcca
 1-5tRNA-Cys(gca)c[57814,57889]
 cgaccgttggctgaatggcttaggcgaaggattgcaaatccttttatgt
 gattcaaatctcatcggtcgcca
 1-6tRNA-Tyr(gta)c[58407,58490]
 gcatcgtagcagaatgtctattgcagcggctgtaaatccgtgcccttc
 ggggttggtggttcaaatccatcacgatgcacca
 1-7tRNA-Met(cat)c[59367,59441]
 gggctgtagcttaaagttaaagcggtaggcctcataagctaacgagtagg
 agttagattctctccgaccacca
 1-8tRNA-Ser(gct)c[59448,59536]
 ggaagaatagcataacggattgcagcagattgctaattctgcggttga
 aatatagccttgggttcgattcccccttctccgcca
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 cggggtgtagtctaaggagaggcaggagtcttctaaattcctttatgca
 ggttcgaatcctgtcacctcgcca
 1-10tRNA-Ser(act)c[62123,62196]
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 aggttcgaatcctacggtcggtaa
 >KX438380.2 Salmonella phage vB_SalM_PM10, complete genome
 1-1tRNA-Met(cat)[101837,101913]
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 ttggttcaaatccaaccaggatcacca
 1-2tRNA-Asn(gtt)[102153,102228]
 gacgatgtagttcagtcggtagaacggcggctgttaaacgtatgtcgc
 aggttcaagtcctgccatcgtcgcca
 1-3tRNA-Tyr(gta)[103283,103366]
 gtgagtgtggcagagcggcgaatgcaggagactgtaaatctccccgtaa
 cagcgggtggttcaaatccatccactcacacca

1-4tRNA-Ser(gct)[103443,103531]
 ggaaggttccccgagaggtttaaggactcgactgctaatacgagtggggc
 ttttagccccgaaggttcgaatccttcacctccgcca

>KX231828.1 Enterobacter phage Arya, complete genome
 1-1tRNA-Arg(tct)c[25273,25349]
 ggccccatagctcaaccggatagagcgacagccttctaagctgtaggttc
 caggttcgattcctgggtgggtcgcca

>KX377933.1 Escherichia phage vB_EcoM_Alf5, complete genome
 1-1tRNA-Pro(tgg)[24208,24284]
 ctctgttagctcagcttggtagagcgttcggttggggcggttaaggccg
 gaggttcaagtctccaacagagacca
 1-2tRNA-Glu(ttc)[24292,24369]
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 gagggttcaaatcccttctggaacgcca
 1-3tRNA-Met(cat)[24460,24536]
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 1-4tRNA-Asn(gtt)[24620,24696]
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 1-5tRNA-Tyr(gta)[24766,24853]
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 1-6tRNA-Asp(gtc)[24859,24936]
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 1-7tRNA-Lys(ttt)[25365,25440]
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 1-8tRNA-Met(cat)[25445,25521]
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 tgggttcgattcccatctgaacctcca
 1-9tRNA-Ile(gat)[25523,25598]
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 tgggtcgattccacctaccagtacca
 1-10tRNA-Ser(tga)[26524,26613]
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 gtagagatacggtaggggttcgactccttactaccgcc
 1-11tRNA-Leu(tag)[26869,26946]
 gggagattgacggtaattggtaaacctaccatcctagaagttggtgtt
 gagggttcgaatccctgtctctacca
 1-12tRNA-Lys(ctt)[26954,27029]
 gcaggttagcaaaatggttatgcggctgactcttaatcagtaagacgac
 gggttcaatccctccacctgtacca

1-13tRNA-Ala(tgc)[27035,27110]
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 gattcaattctcagtactccacca
 1-14tRNA-Gly(tcc)[27117,27191]
 gcatccatagtttaaacgggaaaattacagttcttccaaactgaggttgag
 ggttcgattccctctggatgctcca
 1-15tRNA-Thr(tgt)[27199,27274]
 gctcctatcgtataatcggctattacggttgcttgtaagcaacttatca
 ggggtcgaatccttggggagcacca
 1-16tRNA-Val(tac)[27370,27444]
 actcgcttagtttataggtaaaacatcaccttacaagatgaagaaaaa
 ggttcaagtccttagtgagtacca
 1-17tRNA-Leu(caa)[27446,27523]
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 gacggttcgaatccgtcttggaaacacca
 1-18tRNA-Gln(ttg)[28108,28183]
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 1-19tRNA-Leu(taa)[28186,28264]
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 1-20tRNA-Gln(ctg)[28270,28345]
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 1-21tRNA-His(gtg)[28377,28452]
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 ggggtcgactcccgtaggtcacccca
 1-22tRNA-Phe(gaa)[28459,28534]
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 agggttcaaatcccactggactacca
 1-23tRNA-Ser(gct)[29287,29379]
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 ctgagaaatcggtgtaccagttcaagctggtatcttctcca
 1-24tRNA-Cys(gca)[29384,29459]
 gaatccgtgacagaaatggatatgtgcctgtctgcaaaacaggtttataa
 ggggtcaagtccttcggattctcca

>KU737348.1 Bacillus phage Zuko, complete genome

1-1tRNA-Asn(gtt)[33777,33850]
 gtgcttagctcagtcggtagagctggtggctgtaaccactgtgtcgt
 aggttcgattcctacctagcacgc
 1-2tRNA-Glu(ttc)[33857,33933]
 gtgcgattgggtgaaattggctaacacactcggctttctaccgaggattta
 ggggttcgagccccctatgcgattcca
 1-3tRNA-Asp(gtc)[33938,34011]

tggggatatagtgtagaggtaaacacgcacggctgtctaccgtgaagcac
 gaggtcgaatctcgttatcctcgt
 >KR233164.1 Salmonella phage NR01, complete genome
 1-1tRNA-Ser(gga)c[108,201]
 ggaaaagcaaatagattggtgactaaacccgattggaaatcggttgagt
 gtagcaataccgccttatgggttcaactcccatctttccgcca
 1-2tRNA-Leu(tag)c[208,292]
 gggtagtggtgtaatgggtagccacgagggtcttagaagcccttgctta
 agtgcgtgagagttcagagtcctcctaaccacca
 1-3tRNA-Ala(tgc)c[299,373]
 gggcgaatagtgtagcgggagcacaccagacttgcaatctggtagggag
 ggttcgagtcctctttgtccacca
 1-4tRNA-Pro(tgg)c[1124,1201]
 cagggtgaagggtgataaggtacgccacctcggttggggcgaggaaatctt
 tagagttcgaatctctataccctgacca
 1-5tRNA-Asp(gtc)c[1583,1657]
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 1-6tRNA-Asn(gtt)c[1956,2038]
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 agttagattctcctccgaccacca
 1-8tRNA-Ser(gct)c[2714,2807]
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 tgtggaacacgggtgcccagttcagagtcgtgcattctctcca
 1-9tRNA-Arg(tct)c[6350,6426]
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 >KX258185.1 Klebsiella phage vB_KpnM_KpV477, complete genome
 1-1tRNA-Thr(tgt)c[67989,68064]
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 ggggtcgactcctgcaatcggcacca
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 ggggtcgagtcctgggggggtacca
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 atgttcgagtccttgccagggtcacca
 1-5tRNA-Pro(tgg)c[71292,71368]

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aatgttcgagtcattctatggagacca
1-6tRNA-Gly(tcc)c[71374,71448]
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ggttcgattcccttggatgctcca
1-7tRNA-Trp(cca)c[71454,71528]
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ggttcgattccttcagggcctgcca
1-8tRNA-Ile(gat)c[71535,71610]
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tggttcgagtcagttactcccacca
1-9tRNA-Ser(tga)c[71677,71761]
ggagagtagcgctagtggtagcaaaccggacttgaaatccgggccaccgg
aaacggtgaggggtcaactcctttactctccgcca
1-10tRNA-His(gtg)c[71859,71934]
gtggccgtagttcagttggtagaactcgagattgtgattctcgtagtc
gggttcaactcccatcggtcacccca
1-11tRNA-Gln(ttg)c[72031,72105]
tggactatagacaagcggtaagtcaccggccttgactccggtatctct
ggttcgaatccagatagtcagcca
1-12tRNA-Met(cat)c[72111,72187]
tgcgggtaactcagttggtagaatgtgggctcatatcccacacgcg
caggttcgagtcctgcctccgcctcca
1-13tRNA-Asp(gtc)c[72349,72425]
ggacctatagtttagttggataaaatactcccctgtcacgggagagagcg
cgagttcgatcctcgctaggtccgcca
1-14tRNA-Asn(gtt)c[72656,72740]
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tgactaggcaggttcgatacctgcacggcccgcga
1-15tRNA-Lys(ttt)c[72747,72824]
agaacgttagctcatctggttagagcactcgacttttaacgagatgctg
atgggtcaaataccctcacgttctacca
1-16tRNA-Tyr(gta)c[73303,73389]
ggggcgtagaccgtaggggtagcgggacagactgtaaatctgttctca
aaaggctcgggtggttcgactccatcactccccacca

>KX130864.1 Shigella phage SHBML-50-1, complete genome

1-1tRNA-Arg(tct)c[70296,70371]
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aggttcgatccctactgcctcgacca
1-2tRNA-His(gtg)c[70376,70451]
gtggccgtagttcagttggtagaactcgagattgtgattctcgtagtc
gggttcgactcccatcggtcacccca
1-3tRNA-Asn(gtt)c[70566,70640]
ggatgtgtagctcagtggtagagcagttgactgtaataatgggtccat

ggttcgaatccatgcatgtccgcca
 1-4tRNA-Tyr(gta)c[70645,70731]
 ggggagttatcccgtagaggtagcgggtggactgtaaatccattgtcat
 tgcgactcgggtggttcgactccatcactccccacca
 1-5tRNA-Met(cat)c[70744,70818]
 ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
 ggttcaattccaccaggccacca
 1-6tRNA-Thr(tgt)c[70820,70895]
 gctgatttagctcagtaggtagagcaactcacttgtaatgagaaggtcgg
 cggttcgattccgtcaatcagcacca
 1-7tRNA-Ser(tga)c[70902,70991]
 ggaggcgtggcagagtggtttaatgcaccggtcttgaaccggcagtcg
 ctccggcgactcataggttcaaatcctatcgctccgcca
 1-8tRNA-Pro(tgg)c[70993,71067]
 ctccgtgtagctcagtttgtagagcgctgattgggatcaggaggtcc
 aaggttcaaatcctgtatggagac
 1-9tRNA-Gly(tcc)c[71078,71151]
 gcggatatcgataatggcattacctcagacttccaatctgatgatgga
 gttcgattctcattatccgctcca
 1-10tRNA-Leu(taa)c[71157,71243]
 gcgagaatggtaaattggtaaaggcacagcacttaaatgctgcggaat
 gatttccttgtgggttcgagtcctcactctcgcacca
 1-11tRNA-Gln(ttg)c[71244,71317]
 tgggaattagccaagttgtaaggcactggatttgattccagatgcaa
 aggttcgagtcctttattcccagc

>KU577463.1 Bacillus phage Deep Blue, complete genome

1-1tRNA-Met(cat)c[140342,140416]
 taggattatagctcagtggttagagcgtgggtctcataagcccagggtcga
 tggttcgaccccatctattcctatc
 1-2tRNA-Trp(cca)c[140420,140493]
 ggggggttagtttagtggaaaaatgacaggctccaaacctgtagtcggag
 gttcgattccttgcgcccttgcca
 1-3tRNA-Leu(tag)c[140500,140575]
 gccgaggtaatccaacggaagagatagtggtcttagaagccatacagtgga
 ggggtcgaatccctctctcggtacca
 1-4tRNA-Ile(gat)c[140584,140660]
 actagtgtagctcagttaggtagagcagtgcttgataaggcattggtca
 caggttcaaatcctgtcactagtagacca
 1-5tRNA-Leu(taa)c[140662,140748]
 atcggagtggtggaattggtagacatacgggacttaaatcccgtgccat
 tgagtgcgtgagggttcgagtcctcctccgatacca
 1-6tRNA-Tyr(gta)c[140756,140837]
 gggcgtgctatccttgagagataagctggctgtaaacagtggcgtaag
 ctgagaaggttcgaatccttccattcccacca

1-7tRNA-Phe(gaa)c[140844,140918]
ggacaggtagctgagacggattagcgactggttgaaaccattagagagt
ggatcgttaccactcctgtccacca

1-8tRNA-Pro(tgg)c[141014,141088]
tgtggatgtaggctagttggtcagtcacctcggttggggcgagggtcacg
cacgttcgaatcgtgtcatccgcat

1-9tRNA-His(gtg)c[141191,141261]
cagtggtggcgtagtggaacgcagtggtggaatccatgaacgaga
gttcgattctctccatactga

1-10tRNA-Gln(ttg)c[141339,141415]
tttcggagtggaacaaactggtaagtcgtcaggcttgaccctgaagtg
gggtggttcgatcccatcctccgaagtc

1-11tRNA-Ser(tga)c[141494,141581]
cggggaataactcaagtggtgaaaagaggatggtctgaaaaccattaggc
gtgaaagcgtgcgggggttcgaatccctcttctcctcggc

1-12tRNA-Arg(tct)c[141672,141747]
taccctttagccaagtggactaaggcaacgggcttctatcccgtggatc
gtgcgttcgaatcgtacagggggtgt

1-13tRNA-Glu(ttc)c[141841,141916]
tgtcgcattggtgaaactggctaacacactcggttctaccgagcattc
acgagttcgaatctcgtatgcgatat

1-14tRNA-Thr(tgt)c[142030,142104]
gccttcttagctcaggtggctagagcgactgccttgtaagcagtaggtcg
tgggttcgaatcctacagtcggcac

1-15tRNA-Asp(gtc)c[142110,142183]
tggggatatagtgtagcgggaacacactgactgtctatcaagtagcac
gggttcaagtcccgttatcctcgt

1-16tRNA-Gly(tcc)c[142272,142346]
ggggcattggtatattggctattattcttggtccaaccaagcgaggtc
ggttcgattccgacatgtccctcca

1-17tRNA-Ser(gct)c[142532,142622]
ggaagggtgtcagagcggttattgttctgttgctaaacaggtgtacg
tccttaacgtaccacaggtcaaatectgtacctccacca

1-18tRNA-Asn(gtt)c[142627,142701]
gtactttagctcagaggtagagcagcagattgtaaatctgaaggtcggt
ggttcgatcccaccctggtacgcca

1-19tRNA-Cys(gca)c[142729,142802]
gaagggtaccgaagtggctcaacggcacagattgcaaccctgttgtcg
ggggttcgaatccctccactttct

>KX397368.1 Erwinia phage vB_EamM_Huxley, complete genome

1-1tRNA-Trp(cca)[883,959]
gggggagtagttcaattggcgagagcgtcggttccaaatccggttggtg
caggttcgagtcctgtctcccctgccca

1-2tRNA-Cys(gca)[1281,1354]

ggggcgctggccgagtggttaggcgctggattgcaaatcctgtaccgcg
gttcgattccgcggcgtccctcca
1-3tRNA-Tyr(gta)[4117,4202]
ggcgggttactcaagcggtaacgagagcagactgtaaactgttgcctt
cgggcttcgtaggttcaaactctcacgccacca
1-4tRNA-Asp(gtc)[4504,4579]
ggtgctatcgtctagtgccgaggatactaccctgtcacggtagagaccg
gagttcgattctccgtagcaccgcca
1-5tRNA-Ile(gat)[4588,4663]
tgctcttagctcagttggtagagcgacccctgataagggtgaggccac
tggttcaagtcagtagatgcaacca
1-6tRNA-Glu(ttc)[4671,4747]
attcccgatctagttggtccaggatacgacactttcactgtcggtaca
cgagttcaaactcgtcgggaatacca
1-7tRNA-Ser(gct)[4753,4843]
agagaattgactgagttggttaaggctcccctgctaaggagtgat
gcgaaagtgtaccattggttcgaatccaatattctctgcca
1-8tRNA-Ile(aat)[5308,5401]
tggctccgtagctaaatcggtagaggcagacttaattagtttccaacg
atltataatcgctggtgtaggtcaagtctaccggagcaag
1-9tRNA-Asn(gtt)[5485,5560]
gactctgtagttcagttggtagaacggtgactgttaatccatatgtcgc
aggttcgagtcctgccagagtcgcca

>KR269718.1 Escherichia phage HY03, complete genome

1-1tRNA-Arg(tct)c[7,83]
cggggcatagctcaattgtatagagcaacggacttctaactcgtaggttg
aaggttagaatccttctgcctcgacca
1-2tRNA-Met(cat)c[794,865]
ggcctgtagctggaaggttcaagcaagcgactcataatgccagatggt
ggttcaattccaccaggcca
1-3tRNA-Thr(tgt)c[872,944]
gctgatttagctcagtaggtagagcaactcacttgaatgaggacgtcgg
cgggttcgattccgtcaatcagca
1-4tRNA-Ser(tga)c[951,1039]
tggaggcgtggcagagtggtttaatgcaccggcttgaaaaccggcagtc
gtccggcgactcataggttcaaactctatcgctccgt
1-5tRNA-Pro(tgg)c[1040,1114]
ctccgtgtagctcagtttggtagagcgtctgttgggagcagaatgtcg
caggttcaaactctgccgagagac
1-6tRNA-Gly(tcc)c[1127,1198]
gcggatatcgtataatggattacctcagacttccaatctgatgatga
gttcgattctcattatccgctc
1-7tRNA-Leu(taa)c[1205,1291]
gcgagaatggtcaaattggtaaaggcacagcacttaaatgctcggaat

gatttccttgtgggttcgagtcaccacttctctgtacca
>KU867307.1 Salmonella phage vB_SnwM_CGG4-1, complete genome

1-tRNA-Arg(tct)c[57710,57785]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
aggttcgatccctactgtctcgacca
1-2tRNA-Gln(ttg)c[58425,58500]
tgggaattagccaagttggaaggcaccggatttgcattccgggatgcac
tggttcgagtcagttattcccagcca
1-3tRNA-Met(cat)c[58507,58581]
ggccctttagctcaatgggagagctgtcagctcataactgataggtagct
ggatcgaaaccagcaagggccacca

>KX130862.1 Shigella phage SHFML-26, complete genome

1-tRNA-Arg(tct)c[133433,133508]
cggggcatagctcagaaggaagagcaaggaccttctaagtcctgggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-Met(cat)c[134219,134290]
ggccctgtagctggaaggtcaagcaagcgactcataatgccagatggt
ggttcaattccaccaggcca
1-3tRNA-Thr(tgt)c[134297,134369]
gctgatttagctcagtaggtagagcaactcacttgtaatgagaaggtcgg
cggttcgattccgtcaatcagca
1-4tRNA-Ser(tga)c[134376,134464]
tggaggcgtggcagagtggttaatgcaccggcttgaaaaccggcagtc
gctccggcgactcataggttcaatcctatcgctccgt
1-5tRNA-Pro(tgg)c[134465,134539]
cttcgttagctcagtttgtagagcgtctgctttgggagcagaatgtcg
caggttcaatcctgcccgagac
1-6tRNA-Gly(tcc)c[134552,134623]
gcggatatcgataatggattacctcagactccaatctgatgatgtga
gttcgattctcattatccgctc
1-7tRNA-Leu(taa)c[134630,134716]
gcgagaatggtcaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttgtgggttcgagtcaccacttctctgtacca
1-8tRNA-Gln(ttg)c[134717,134790]
tgggaattagccaagttggaaggcactggatttgcattccaggatgcaa
aggttcgagtcctttattcccagc

>KX752698.1 Mycobacterium phage Tonenili, complete genome

1-tRNA-Ser(gct)[35875,35958]
ggagggtgagcatcaggtgatgcagcgagattgctaattcccgtacggtaa
ccaccccgtaggttcgaatcctcctccctccgc
1-2tRNA-Leu(cag)[36151,36226]
gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt
tgagttcgaatctcaccgggagtac
1-3tRNA-Leu(gag)[36346,36420]

gtctctgtaggcaaaccggaaaagccgccatcttgaggggtggtgcgtg
cgggttcgactccccccagagacac
1-4tRNA-Leu(caa)[36421,36494]
gccgtggtaggccatctggcgagccgccgaattcaagtttcggtgttgc
gggttcgaatcccccccacggtac
1-5tRNA-Pro(tgg)[95715,95789]
cggggtgtagttcagtttgaagagcgcttggttgggaccaagatgtc
caggttcgaatcctgtcaccccgac
1-6tRNA-Trp(cca)[95806,95881]
tggggtgaagccgatccggaaggcagcggtctcaaagccgtctcatagc
gggttcgaatcccgtaaccctgccca
1-7tRNA-Tyr(gta)[95883,95968]
gccgcacatgcccactggtgttgggagcagactgtaaatctgtggccct
agggacggtgaggttcgattcctcagtcggtacca
1-8tRNA-Pyl(cta)[97314,97385]
gcaccatttgctcaatggcagagcggcggttctaaccctgagtgccg
gttcgattccggcatggtgcac
1-9tRNA-Met(cat)[97536,97610]
agcgggtgtagagcagctaggtagctcgccgggctcataaccggaggacg
cgtgttcgaatcacgccaccgccac
1-10tRNA-Cys(gca)[97824,97895]
gcgccttggcggaatggctacgtgctcggtgcaaccgagttatcccg
gttcgactccgggaggcgctc
1-11tRNA-Glu(ctc)[97900,97974]
ggtccgttggagtagatggatatctgccaccctctcaagtgagatca
cgggttcaagtcccgtacggactgc
1-12tRNA-His(gtg)[97976,98048]
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ggttcgaatccgaccgtcaccc
1-13tRNA-Ala(tgc)[98208,98281]
gggcctatagctcatctggtagagcgctgccttgcaagcaggaggcggc
aggttcaagtccctgttagtccac
1-14tRNA-Phe(gaa)[98471,98543]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgtcggcac
1-15tRNA-Val(cac)[98626,98699]
gtccgtttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-16tRNA-Lys(ctt)[98821,98893]
gccttcgtagctcagtggtagagctgccctcttaagcggtaggtcgtt
ggttcgaatccagccgggggcac
1-17tRNA-Glu(ttc)[98897,98972]
ggtcgggtggtctgttggcaggccggtcgggttttcacccggcgctcatc
gcgggttcgattcccgtaaccgactgc

1-18tRNA-Gly(tcc)[99102,99174]
gcgggtgtggccgaatggctcaggcaccagactccactctggctaagca
ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[99234,99307]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cggttcgagtcggacagcagctc
1-20tRNA-Thr(tgt)[99316,99389]
gcccttgtagctcagtggttagagcaccgacctgtaagtcgggtgtccc
gggttcgattcctggttggggccc
1-21tRNA-Thr(ggt)[99449,99521]
gctgatttagctcagtggttagagcggcacttggtatgtcggaggccccg
ggttcgatccccggattcagctc
1-22tRNA-Gly(gcc)[100844,100917]
gcgaaggtagctcagctggttagagcgccaccttgccaaggtggaggtcgc
gggatcgtaacccgttcttcgctc
1-23tRNA-Asp(gtc)[100921,100996]
ggccctgtggagcagctaggagtgtcgcaccctgtcacggtggaggtc
gacggttcaaatccgttcagggtcgc
1-24tRNA-Met(cat)[101083,101155]
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ggttcgattccagggtgaggtac
1-25tRNA-Ile(gat)[101160,101236]
gcctgttagcggactggctcgtccgatccaagctgataactggcgttaagc
ggtgttcgattaccgagcaggtacca
1-26tRNA-Arg(acg)[101298,101370]
gcctctatggtccaacggagatgacgccggtctacggaaccggagatcgc
tgttcgactcgcgctaggggcac
1-27tRNA-Val(gac)[101413,101485]
gtccgtgtagctcaggggtagagcgctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-28tRNA-Arg(cct)[101657,101730]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-30tRNA-Gln(ttg)[102271,102346]
tggggtatggtggcaatctggcagtcgccgacgttgactccggaggt
gcaggttcgagtcctgctaccccatc
1-31tRNA-Arg(tct)[102350,102425]
gccctttagctcagtggttagagcggcgagcttctacctcgcgggccgg
gagttcgaatctctcaggggcacca
1-32tRNA-Gln(ctg)[131096,131170]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattctt
ggttcgaatccaggacgagcaacca
1-33tRNA-Asn(gtt)[131177,131253]
tggggtgtagttcaatctggcagaacgctcactgttaatcagtagttg

aaggttcgagtccttccatcccagcca

>KX130865.1 Shigella phage SHSML-52-1, complete genome

1-1tRNA-Met(cat)[130607,130681]

ggccctgtagctcaatgggagagctgtcagctcataactgataggtagct

ggatcgaaccagccagggtcacca

1-2tRNA-Arg(tct)[130685,130761]

cgaggcatagctcaattgtatagagcaacggacttctaaccgtaggttg

aaggttagaatccttctgtctcgacca

>KU594606.1 Cyanophage S-RIM32 isolate RW_108_0702, complete genome

1-1tRNA-Leu(taa)[17872,17956]

tgggaccatgatggaattggtagacattcgggacttaaaatccgttggca

ttacgccgtgcgagttcaagtcctcgctggcctat

1-2tRNA-Asp(gtc)[19287,19362]

ggggtagtagctcagttggttagagtacctgcctgtcacgcagggtgccg

tgggttcaagtcccatctatcccgcc

1-3tRNA-Thr(tgt)[19365,19438]

gcctccgtagctcagctggatagagcaacggtttgtaaaccgtaggtcg

tcggttcaagtcgaccgtgggct

1-4tRNA-Leu(caa)[19491,19563]

catctggtagtctattggttaaggacgggtggacaacacacatgaaactg

ggttcgattcctagacagatgac

1-5tRNA-Ala(tgc)[19649,19721]

ggggaattagctcagttggttagagcacctgcttgcgaagcaggctgtcag

gagttcgagtctcctattctcca

1-6tRNA-Asn(gtt)[19749,19822]

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tggttcgagcccaggtggaggagc

1-7tRNA-Leu(tag)[19826,19907]

gtcgttggcggaattggttagacgcgctgggttaggttccagtgaagt

aattcgtggaggttcaagtcctctcagcgaca

1-8tRNA-Ser(tga)[146887,146975]

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tgtaaagcccttgggagttcgactctccctccctcgt

1-9tRNA-Arg(tct)[165780,165855]

gggtcagtagctcagttggatagagcaactgccttctaagcagtcggtca

caggttcgagtctgtctgacccgcc

1-10tRNA-Val(tac)[165857,165930]

tgcccgttaactcagcggtagagtgtctctttacacggagggtgtcgg

cggttcgaatccgtcagcgggcat

1-11tRNA-Pro(tgg)[167482,167557]

tcggggcgtagctcagtttggtagagcactcgcttgggagcgagtggcc

gtaggtcaaatacctatcgcccgat

1-12tRNA-Gly(tcc)[169948,170019]

gcgggtgtagttcagtggtagaacgctatcctccaagttagatgtcgtc

gggtcgaatccgatctcccgt
 >KU594605.1 Cyanophage S-RIM50 isolate RW_29_0704, complete genome
 1-tRNA-Gly(tcc)[13531,13605]
 gcggatgtagttcagtcaggtagaacgctatcctccaagtagatgctg
 tcggttcgattccgatcatccgctc
 1-2tRNA-Val(tac)[13607,13680]
 tgggcgattaactcagcggtagagtcctcctttacacggagtaggtcgg
 gggttcgaatccctcatcgcccat
 1-3tRNA-Leu(taa)[17898,17985]
 tgggacgggtggcggaatcggtagacgcacgactaaaatccgctgagg
 attaacctctgtgagagttcaagtctctctcgtcctat
 1-4tRNA-Thr(tgt)[18058,18131]
 gcccatatagctcagctggatagagcaacggtttgtaaaccgtaggtcg
 tcggttcaagtcgacttgggt
 1-5tRNA-Ala(tgc)[18249,18321]
 ggggtagtagctcagttggtagacacgtcttgcaagcaggctgtcag
 gatttcgagtcctattctcca
 1-6tRNA-Asn(gtt)[18348,18422]
 ttctctatagctcagtcggtagagcgtctgactgtaatacagaatgtcc
 ctggttcgagcccagggtggaggagt
 1-7tRNA-Arg(tct)[159822,159897]
 tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
 acaggttcgagtcctgtctgacccgt
 1-8tRNA-Pro(tgg)[160906,160978]
 cggggtgtagcgcagaggtagcgcggctgtttgggaacagcaggctcgca
 gggtcgaatccctgtcaccgac
 >KJ628499.1 Acinetobacter phage vB_AbaM_phiAbaA1, complete genome
 1-tRNA-Arg(tct)[7851,7927]
 acgccattagctcagatggatagagcatctgccttctaagtagatggtca
 cgggttcgaatcctgtatggcgtacca
 1-2tRNA-Tyr(gta)[8226,8311]
 gtatgtgtgacccgaattggtaaggagcggactgtaactcgttgtcaa
 aagcaatttaggttcaagtcctaccacatacacca
 1-3tRNA-Ile(gat)[8318,8392]
 ggtagattagctcagcggtagagcagtagcccgataagctattggtcgct
 ggttcaaatccagcatcgactacca
 1-4tRNA-Pro(tgg)[8980,9056]
 cggtgtgttcgagaaaggtaatcgactgccttggagcgcagaatatg
 taggttcgagtcctaccgcaccgacca
 1-5tRNA-Asp(gtc)[9262,9337]
 gactcattagctcaatcgggagagcggcactgtcactgtggaggtaag
 gagatcgaaactcctatgggtcgcca
 1-6tRNA-Thr(tgt)[9608,9681]
 gctggatcgtatagtggtattatgctggtcttgaatccagtcacggtg

gttcgattcctcctaccagcacca
1-7tRNA-Trp(cca)[10009,10079]
gggttgaccgctggcggtgacgaggctccaaacctgtcttgctacgtt
cgattcgtagtcgatctgcc
1-8tRNA-Gln(ttg)[10201,10276]
tgggacgtagtgtagttggtagcacatgagactttgactctcatagatt
cagttcgaacctgaacgtccctcca
1-9tRNA-His(gtg)[10373,10448]
gtgatcatgggtgaattggctagcaccgcgatttgtgatgtcgttagtct
gagttcgaacctcagtgatcacacca
1-10tRNA-Gly(tcc)[10451,10524]
gcgtgattgggtataatggtattatgtctggctccaccagaagacgaga
gttcgattctctcatccagcgcca
1-11tRNA-Glu(ttc)[10531,10605]
gttcattcgactagcggtaggtcgcttcccttcaaggaagtagcacg
agttcaaatctcgtatggaatacca
1-12tRNA-Cys(gca)[10933,11007]
ataccataatctaaaggacgaagtgtggcttgcaaacccagaatagt
agttcgaagtctcacatggtattcca
1-13tRNA-Leu(tag)[11022,11099]
gtacaggtgacgggaactggcatacctatcacgcttagaacgtggctt
gtgggttcgaagcccacctgtatacca

>KX405003.1 Salmonella phage BPS15Q2, complete genome

1-1tRNA-Pro(tgg)[10996,11072]
ctctgttttagctcagcttggtagagcgttccgtttggggcggttaagccg
gaggttcaagtcctccaacagagacca
1-2tRNA-Glu(ttc)[11080,11157]
gttcagtagacaaaatggtatagtcaccactcttcaaagtggaatatt
gagggttcaaatccctctggaacgcca
1-3tRNA-Met(cat)[11248,11324]
tgcgggtatagagaaaggcgtctcacatgtctcattagcatggtatcgg
caggttcgactcctgcacccgcctcca
1-4tRNA-Asn(gtt)[11403,11479]
ggttaggaagcacataaggtatgtcggtcgcctgttaagcgaatggcac
agggttcgaatccctgactaaccgcca
1-5tRNA-Tyr(gta)[11551,11638]
gtgtcgttatcccgtagatggtagcgggtgggactgtaaatccctgtca
ttgagactcggtaggttcgactcctacacggcacacca
1-6tRNA-Asp(gtc)[11645,11721]
ggttatgtagttaactggataaaatactcccctgtcacgggagatgatg
tgagttcaagtctcatcataaccgcca
1-7tRNA-Lys(ttt)[12154,12229]
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1-8tRNA-Met(cat)[12234,12310]
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tgggttcgattcccatctgaacctcca
1-9tRNA-Ile(gat)[12313,12387]
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ggttcgataccctcacctacaacca
1-10tRNA-Ser(tga)[13046,13135]
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gtagagatacggtaggggtcgcactccttacttaccgcc
1-11tRNA-Leu(tag)[13391,13467]
gcacctatagcccaactggtagaggcagcagacttagaatctgctcagtg
tgattcgaatctctctaggtgtacca
1-12tRNA-Lys(ctt)[13475,13550]
gcagggtagcaaaatggttatgcggctgactcttaacagtaagacgat
gggttcaattccctccacctgtacca
1-13tRNA-Ala(tgc)[13557,13632]
ggggatgtagtttacatggttaaacataagtttgcaaacttaagtaca
gggttcaattccctgcttctccacca
1-14tRNA-Gly(tcc)[13639,13713]
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ggttcgattccctctggatgctcca
1-15tRNA-Thr(tgt)[14142,14218]
tgctgcttcgtataattggctattacacatcccttgtaaggatggaaat
gcaggttcgaatccttgtgggagcacc
1-16tRNA-Val(tac)[14315,14389]
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ggttcaagtccttagtgagtacca
1-17tRNA-Leu(caa)[14391,14468]
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1-18tRNA-Arg(acg)[14474,14549]
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1-19tRNA-Gln(ttg)[15135,15210]
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1-20tRNA-Leu(taa)[15213,15291]
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tatcggttcgaatccgatatggagtacca
1-21tRNA-Gln(ctg)[15297,15372]
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1-22tRNA-His(gtg)[15404,15479]
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1-23tRNA-Phe(gaa)[15486,15561]
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agggttcaaatcccactggactacca
1-24tRNA-Ser(gct)[16314,16406]
ggaagattaaccctaaaaggttaaggagcagtttgctaaactgccagtag
ctgataaatcggtgtaccagttcaagctcgtgtatcttctcca
1-25tRNA-Cys(gca)[16411,16486]
gaatccgtgacagaaatggatatgtgcctgtctgcaaacaggttataa
gggttcgagtccttcggattctcca

>KU686211.1 Synechococcus phage S-WAM2 isolate 0810PA29, complete genome

1-1tRNA-Leu(taa)[16149,16232]
gggacggtgggtgaattggtagacccccagacttaaaatctgttgagcg
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1-2tRNA-Asp(gtc)[17704,17779]
tggggtgtagctcagtcggttagagcgcctgcctgtcacgcaggaagtc
gagggttcaagtccttcagtcctcgt
1-3tRNA-Thr(tgt)[17782,17858]
gccacttagctcagctggatagagcagggtttttaaagctcaggta
cccgttcaagtcggtaagtggctcca
1-4tRNA-Ala(tgc)[17859,17931]
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cggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18292,18366]
ttggggtgtagctcagcggtagtagcgggaagctgtaacttctaggtcg
caggttcgatccctgccgcccagtc
1-6tRNA-Tyr(gta)[18369,18450]
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1-7tRNA-Arg(tct)[157420,157496]
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ctggttcgaatccagcctgagacgcca
1-8tRNA-Leu(tag)[157497,157579]
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tgcgacgtggaggttcaagtcctcttaccgaca
1-9tRNA-Val(tac)[157581,157654]
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gggttcgaatccctcttcgggcat
1-10tRNA-Ser(tga)[158117,158203]
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tgagagcttccgtgggttcgaatcccacccttccgt
1-11tRNA-Pro(tgg)[158206,158280]
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taggttcgaatcctatcaccccgac

1-12tRNA-Gly(tcc)[160808,160879]
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ggttcgaatccgatactccgct

>KU878968.1 Escherichia phage WG01, complete genome
1-1tRNA-Arg(tct)c[68899,68973]
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ggttcgatcccaggcgaggatacca
1-2tRNA-Met(cat)c[68979,69055]
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ccagttcaaatctggtctgggtcacca

>KX236333.1 Campylobacter phage PC14, complete genome
1-1tRNA-Tyr(gta)c[120868,120952]
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tggcattgatggttcaagtcacatccttctacacca
1-2tRNA-Asn(gtt)c[120971,121045]
tgcagattagcacagcggtagtgcaatcgactgtaatcgatgagtcaga
ggttcgaatcctctatctgcagcca
1-3tRNA-Met(cat)c[121139,121213]
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ggttcgattcctgtttcgcccacca

>KU878969.1 Escherichia phage MX01, complete genome
1-1tRNA-Arg(tct)c[69836,69910]
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ggttcgatcccaggcgaggatacca
1-2tRNA-Met(cat)c[69916,69992]
ggccccgtagctcaatggtagcagcagtcacctcataagggaaaggta
ccagttcaaatctggtccgggtcacca

>KU686210.1 Synechococcus phage S-WAM1 isolate 0810PA09, complete genome
1-1tRNA-Thr(tgt)[18964,19038]
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tcggttcaagtccgacatcaggctc
1-2tRNA-Asn(gtt)[19044,19117]
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tggttcgatcccaggagggggagt
1-3tRNA-Arg(tct)[165410,165485]
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taggttcgagtcctacctggatcgt
1-4tRNA-Val(tac)[165488,165560]
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ggttcgatcccctcatctccac

>KX245012.1 Salmonella phage GG32, complete genome
1-1tRNA-Met(cat)[19041,19116]
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tggttcaagtccagccagggtcacca

1-2tRNA-Asn(gtt)[19529,19604]
 gacgatgtagttcagtcggtagaacggcggctgttaaatcgtatgtcgc
 aggttcaagtcctgccatcgtcgcca
 1-3tRNA-Ser(act)[20272,20360]
 ggaaggttccccgagaggtttaagggactcgactactaatcgagtggggc
 ttttagccccgaaggttcgaatccttcacctccacca
 >KT001918.1 Klebsiella phage Matisse, complete genome
 1-1tRNA-Met(cat)[49953,50029]
 ggccccttagctcaataggtagagctaatacactcataatggtaggttcc
 cggttcaagtcacgggagggccacca
 >KM607000.1 Enterobacteria phage RB27, complete genome
 1-1tRNA-Arg(tct)c[67633,67708]
 cgaggcatagctcagaaggaagagcaaggaccttaagtctgggtcgt
 aggttcgatccctactgcctcgacca
 1-2tRNA-Asn(gtt)c[67713,67787]
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 ggttcgaatcctatcacgtccgcca
 1-3tRNA-Tyr(gta)c[67792,67878]
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 tgcgactcgggtggttcgactccatcactccccacca
 1-4tRNA-Met(cat)c[67888,67962]
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 ggttcaattccaccaggccacca
 1-5tRNA-Thr(tgt)c[67964,68039]
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 cggttcgattccgtcaatcagcacca
 1-6tRNA-Ser(tga)c[68045,68134]
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 1-7tRNA-Pro(tgg)c[68136,68210]
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 aaggttcaaatccttgatggagac
 1-8tRNA-Gly(tcc)c[68221,68294]
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 gttcgattctcattatccgtcca
 1-9tRNA-Leu(taa)c[68300,68386]
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 gatttccttggtggttcgagtccttctcgacca
 1-10tRNA-Gln(ttg)c[68387,68460]
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 >KT001915.1 Citrobacter phage Merlin, complete genome
 1-1tRNA-Met(cat)c[72013,72089]
 ggccccttagctcagttggttagagcagtcgactcataatcgattggtcg

ctggttcgagtcagcaggggccacca
 1-2tRNA-Arg(tct)c[72094,72169]
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 tggttcaaatccaaccaggaacacca
 1-3tRNA-Pro(tgg)c[72175,72251]
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 taggttcgaatcctaccgtactgacca
 1-4tRNA-Gly(tcc)c[72259,72333]
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 agttcgattctctctggatgctcca
 1-5tRNA-Ser(tga)c[72704,72796]
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 gtagtgatacgggtccgtgggttcgaatcccacggcttcctcca
 1-6tRNA-His(gtg)c[72801,72876]
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 ggggtcaactcccatcggtcacccca
 1-7tRNA-Gln(ttg)c[72982,73057]
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 tggttcgagtcaggtaacccagcca
 1-8tRNA-Met(cat)c[73065,73141]
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 atggttcgagtcacatcaccgcctcca
 1-9tRNA-Asp(gtc)c[73299,73374]
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 ggggtcgaatcccgttaggtccgcca
 1-10tRNA-Asn(gtt)c[73891,73975]
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 cgacaaggcaggttcgatacctgcactgaccgcca
 1-11tRNA-Lys(ttt)c[73981,74057]
 ggggtgctagctcagttggttagagcaccggacttttaacgggtgtcc
 gaagttcgaatcttcggcaaccacca

>KT381880.1 Citrobacter phage Margaery, complete genome

1-1tRNA-Gly(tcc)[49264,49339]
 gcaggtgtagttcaattggtagaatatctggttccatccagattgtga
 ggggtcgagtccttcacctgctcca

>KM236245.1 Bacillus phage Mater, complete genome

1-1tRNA-Thr(tgt)c[132627,132702]
 gctctttagctcagttggcagagcagctgattgtaatcagcaggtcgt
 aggttcgagacctaccgagacacca
 1-2tRNA-Asp(gtc)c[133079,133151]
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 ggttcaaatccgggatgggtcgt
 1-3tRNA-Gly(tcc)c[133873,133946]
 ctcccatgggtcagcggttatgactcttgccctccaagcaagcagcct

cggttcgattccgagatgggggtc
1-4tRNA-Glu(ttc)c[133948,134023]
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gcgggttcgagtcctcgcagcgctac
1-5tRNA-Met(cat)c[134034,134105]
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tcaactcttacctcagcaacca
1-6tRNA-Asn(gtt)c[134107,134182]
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aggttcgagtcctgcctagtcagcca

>KM607004.1 Enterobacteria phage RB68, complete genome

1-1tRNA-Arg(tct)c[71249,71325]
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aaggttagaatccttctgtctcgacca
1-2tRNA-Asn(gtt)c[71330,71404]
ggatgtgtagctcagtggttagagcagttgactgtaataatcattggtccat
ggttcgaatccatgcatgtcccca
1-3tRNA-Tyr(gta)c[71409,71495]
ggggagtatcccgtagaggtagcgggtggactgtaaattcattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[71508,71582]
ggccctgtagctggaaggtcaagcaagcgaactcataatgccagatggt
ggttcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[71584,71659]
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cggttcgattccgtcaatcagcacca
1-6tRNA-Ser(tga)c[71665,71754]
ggaggtgtggcagagtggtgaatgcaccggtcttgaaaaccggcagtcg
ctccggcgattcataggttcgaatcctatcacctccgcca
1-7tRNA-Gly(tcc)c[72416,72489]
gcggatatcgataatggtattacctcagactccaatctgatgatgtga
gttcgattctcattatccgtcca
1-8tRNA-Leu(taa)c[72495,72581]
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gatttccttgtgggttcgagtccttctcgacca
1-9tRNA-Gln(ttg)c[72582,72655]
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aggttcgagtcctttattcccagc

>KT001916.1 Citrobacter phage Michonne, complete genome

1-1tRNA-Cys(gca)c[58564,58639]
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gggttcaagtccttccgatactcca
1-2tRNA-Ser(gct)c[58646,58738]
ggaagattaaccctaaaaggtaaggagcagtttgctaaactgccagtaa

ccgagaaatcggcgtaccagttcaagtctggtatcttcctcca
1-3tRNA-Phe(gaa)c[59491,59566]
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1-4tRNA-His(gtg)c[59574,59650]
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1-5tRNA-Gln(ctg)c[59682,59757]
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1-6tRNA-Leu(taa)c[59764,59842]
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1-7tRNA-Gln(ttg)c[59845,59920]
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1-8tRNA-Arg(acg)c[59930,60006]
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1-9tRNA-Leu(caa)c[60185,60262]
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1-10tRNA-Val(tac)c[60264,60338]
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ggttcaagtccttcagcgagtacca
1-11tRNA-Thr(tgt)c[60434,60510]
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cagggttcgagtcctgtgagcagcacca
1-12tRNA-Gly(tcc)c[60517,60591]
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ggttcgattccctctggatgctcca
1-13tRNA-Ala(tgc)c[60598,60673]
ggggtcatagtttatatgggtaaaatccgagtttgc aaactgggaact
gagttcaattctcagtgactccacca
1-14tRNA-Lys(ctt)c[60680,60755]
gcaggtgtagcaaaatggttatgcggctgactcttaatcagtaagacgat
gggttcaattccctccacctgtacca
1-15tRNA-Leu(tag)c[60763,60839]
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1-16tRNA-Ser(tga)c[61560,61649]
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gtagagatacggtaggggttcgactccttatctaccgcc
1-17tRNA-Arg(tct)c[62040,62115]

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1-18tRNA-Ile(gat)c[62364,62439]
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tggttcgattccacctaccagtacca
1-19tRNA-Met(cat)c[62442,62518]
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tgggttcgattcccacctgaacctcca
1-20tRNA-Lys(ttt)c[62600,62675]
ggaagtgtacgagaatggtgatgcggcagacttttaatctgacaggcgac
gggttcgaatccctccacttctacca
1-21tRNA-Asp(gtc)c[63099,63175]
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agggttcgattcccttcgtaaccgcca
1-22tRNA-Asn(gtt)c[63339,63415]
ggttaggaagcacataaggcatgtcggctcggctgtaaccgaatggtac
agggttcgaatccctgactaaccgcca
1-23tRNA-Met(cat)c[63500,63576]
tcgggtatagagaaaggcgtctcacatgtctcattagcatggtatcgg
taggttcgactcctacacccgcctcca
1-24tRNA-Glu(ttc)c[63664,63741]
attcccgtagacaaattaggtaaagtcaacacccttcaaggtgtggtt
gagggttcaagtccttcgggaatgcc
1-25tRNA-Pro(tgg)c[63748,63824]
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aaggttcaagtccttcaatggagacca

>KM236239.1 Citrobacter phage Moogle, complete genome

1-1tRNA-Cys(gca)c[60325,60400]
gtatcggtgacagaaatggatatgtcctgtctgcaaaacaggtttatga
gggttcaagtccttcgatactcca
1-2tRNA-Ser(gct)c[60408,60500]
ggaagattaaccataaaaggtaaggagcagtttgctaaactgccagtaa
ccgagaaatcggcgtaccagttcaagtctggtatcttctcca
1-3tRNA-Phe(gaa)c[61252,61327]
agctcaattagcttatatggttaaagcgcgtgtctgaaaaacatgagaac
agggttcaaatcccgatgggctacca
1-4tRNA-His(gtg)c[61335,61411]
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cgggttcgattcccgtaggtcacccca
1-5tRNA-Gln(ctg)c[61443,61518]
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aggttcaaactcttacgtgctgcc
1-6tRNA-Leu(taa)c[61525,61603]
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tatcgggtcgaatccgatatggagtacca
1-7tRNA-Gln(ttg)c[61606,61681]
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tgggtcaattccatcatccccgccca
1-8tRNA-Arg(acg)c[61689,61765]
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gaggttcgaatcctctattctgcacca
1-9tRNA-Leu(caa)c[61944,62021]
gttcagtatcccaattggcagaggatgcaagctcaaacctgtattagt
gacgggtcgaatccgtcttggaacacca
1-10tRNA-Val(tac)c[62023,62097]
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ggttcaagtccttcagcaggtacca
1-11tRNA-Thr(tgt)c[62192,62267]
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gggttcgaatccttgtgggagcacca
1-12tRNA-Gly(tcc)c[62274,62348]
gcatccatagtttaaacgggaaaattacagtcctccaaactgaggttgag
ggttcgattccctctggatgctcca
1-13tRNA-Ala(tgc)c[62355,62430]
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gggttcaattccctgcttctccacca
1-14tRNA-Lys(ctt)c[62437,62512]
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1-15tRNA-Leu(tag)c[62520,62596]
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tgagttcgagtcctcttaggtgtacca
1-16tRNA-Ser(tga)c[62848,62937]
ggtaggtagcggctaattggaagccaaactgtctgaaaacagttgccatt
gtagagatacggtaggggtcgactccttatctaccgcc
1-17tRNA-Arg(tct)c[63328,63404]
gcacccttagttcaaacggatagagcaacggcttctaaccgtcagtta
caggttcgaatcctgtaggggtgtacca
1-19tRNA-Ile(gat)c[63682,63757]
gctggtatagttaagacggttataacactcccctgataagggaacatcgg
tggttcgattccacctaccagtacca
1-20tRNA-Met(cat)c[63760,63836]
ggttcagtcgcagataaggtaatgaagggttcataagccctatgaatg
tgggttcgattccacctgaacctcca
1-21tRNA-Lys(ttt)c[63843,63918]
ggaagtgtagcagaatgggtgatgcggcagacttttaactctgacaggcgat
gggttcgaatccctccacttctacca
1-22tRNA-Asp(gtc)c[64346,64422]

ggttatgtagttaactggataaaatacctccctgtcacgaggatgatg
agggttcgattcccttcgtaaccgcca
1-23tRNA-Asn(gtt)c[64528,64603]
ggtaagtttagctaacttggtaaagcgctgactgttaatcagcgatatca
gggttcaaatccctgacttaccgcca
1-24tRNA-Met(cat)c[64688,64764]
tgcgggtatagagaaaggcgctctcacatgtctcattagcatggatcgg
taggttcgactcctacacccgcctcca
1-25tRNA-Glu(ttc)c[64851,64928]
attcccgtagacaaattaggtaaagtcaacacccttcaaggtgtggtt
gagggttcaagtccttcgggaatgcca
1-26tRNA-Pro(tgg)c[64935,65011]
ctccatttagctcagcttggtagagcgttcggttggggcggtaaggccg
aaggttcaagtccttcaatggagacca

>KM236246.1 Bacillus phage Moonbeam, complete genome

1-1tRNA-Ser(gct)[28945,29034]
tggaggggtactctagcggtcgatgaggttcggttgcataaccggatagac
gggtaaaaccgtgcgagagttcgaatctctccctccgt
1-2tRNA-Asn(gtt)[29314,29388]
tgactagtagctcagtggttagagcaatcggtgttaaccgatcggtcgt
ggttcgagtcctacctagtcagcca
1-3tRNA-Trp(cca)[29391,29464]
tatcgagctagtgtaatggttagcacaggagctccaaaactttagtctg
ggttcaaatcctaggttcggtgtc

>KM606994.1 Enterobacteria phage RB3, complete genome

1-1tRNA-Arg(tct)c[67424,67499]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctgggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-Asn(gtt)c[67504,67578]
ggatgttagctcaatggcagagcgatcgctgttaagcgattggttata
ggttcgaatcctatcacgtccgcca
1-3tRNA-Tyr(gta)c[67583,67669]
ggggagtatcccgtaggtagcgggtgtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[67679,67753]
ggccctgtagctggaaggttcaagcaagcgactcataatcgccagatggt
ggttcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[67755,67830]
gctgatttagctcagtaggttagagcacctcacttgaatgaggatgtcgg
cgggtcgattccgtcaatcagcgcca
1-6tRNA-Ser(tga)c[67836,67925]
ggaggcgtggcagagtgtttaatgcaccggtcttgaaccggcagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca
1-7tRNA-Pro(tgg)c[67927,68001]

ctccgtgtagctcagtttggtagagcgctgattgggatcaggaggtcc

aaggttcaaatccttgatggagac

1-8tRNA-Gly(tcc)[68012,68085]

gcggatatcgataatggcattacctcagactccaatctgatgatga

gttcgattctcattatccgtcca

1-9tRNA-Leu(taa)[68091,68177]

gcgagaatggtaaattggtaaaggcacagcacttaaaatgctgcggaat

gatttccttggtggttcgagtccttctcgacca

1-10tRNA-Gln(ttg)[68178,68251]

tggaattagccaagttgtaaggcactggatttgattccaggatgcaa

aggttcgagtcctttattcccagc

>LN681537.2 Clostridium phage phiCD211, complete genome

1-1tRNA-Ser(gct)[6133,6223]

ggagagggtactcaagtggtaaaggatagtttgctaaactattaggtca

attaattgatacagggttcaaatcccttctctctcca

>KU686201.1 Synechococcus phage S-CAM4 isolate 0809SB33, complete genome

1-1tRNA-Met(cat)[17049,17124]

tgcttccttagcaatctgggaatgcagcaaaactcataattgcctaagg

agagttcgatcctctcaggaagcatc

1-2tRNA-Leu(taa)[17125,17211]

tcgagtatggcggaatcggtagacgcaccagactaaaatctgttgagc

attatgctcgtgggagttcaagtccttactcgcat

1-3tRNA-Thr(tgt)[18029,18101]

gccaaactagctcagtggttagagcagggtttgtaaagctcaggtcgca

ggttcaaatcctgtgttggtc

1-4tRNA-Asn(gtt)[18106,18177]

tcctcttagctcagcggtagagcggttgactgttaataattgtccct

ggttcgatcccaggaaggggag

1-5tRNA-Arg(tct)[158001,158077]

gactcagtagctcagttggatagagcaatgccttctaagcagtcggtcg

ttggttcgagtcacactgagtcgcca

1-6tRNA-Leu(tag)[158078,158160]

gtcggtatggcggaattggtagacgcgccaggttaggttctggtgtctt

atgacgtggaggttcaagtcctcttaccgacac

1-7tRNA-Val(tac)[158163,158234]

gctcgaatagctcaggttagagcacctcctttacacggagattgtcggg

ggttcgatcccctcttcgagca

1-8tRNA-Gly(tcc)[161371,161442]

gcgggtgtagctcagtggttagagcgtcagtttccaaactgaatgtcgtc

ggttcaagtccgatctcccgt

>HQ317290.1 Synechococcus phage S-RIM2 R21_2007, complete genome

1-1tRNA-Val(tac)[13794,13865]

gcccgaatagctcagcggtagagcacctcctttacacggagattgtcggg

ggttcgatcccctcttcgggca

1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcagggtttgttaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggttagagcgctgttgcaagcaggatgtcag
cgggtcagatccgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161238,161312]
tgggtcagtagctcagcggatagagcaaccgcctctaagcgggttggtcg
caggttcaaatcctgcctgacccgt

>KJ019029.1 *Synechococcus* phage ACG-2014d isolate Syn7803C46, complete genome

1-1tRNA-Val(tac)[13618,13691]
tgggtgattaactcagtggttagagtgactgtttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153719,153793]
tgggcaagtagctcagtggttagagcatcgacttctaatacggttggtcg
ggggttcaaatccctccttgcctcgt
1-3tRNA-Asn(gtt)[153814,153887]
ttcccaagtagctcagtggttagagccgctgttaatcggctgggtcgc
tggttcaaatccagccttgggagt

>KJ019028.1 *Synechococcus* phage ACG-2014d isolate Syn7803C45, complete genome

1-1tRNA-Val(tac)[13624,13697]
tgggtgattaactcagtggttagagtgactgtttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153727,153801]
tgggcaagtagctcagtggttagagcatcgacttctaatacggttggtcg
ggggttcaaatccctccttgcctcgt
1-3tRNA-Asn(gtt)[153822,153895]
ttcccaagtagctcagtggttagagccgctgttaatcggctgggtcgc
tggttcaaatccagccttgggagt

>KX349226.1 *Synechococcus* phage S-RIM2 isolate Fa_02_0709, complete genome

1-1tRNA-Val(tac)[13788,13859]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17785,17871]
tgggagtatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17928,18000]
gccccgtagctcagtggttagagcagggtttgttaaagctcaggtcgca

agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18003,18075]
ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
cgggtcagatccgctattctcca
1-5tRNA-Asn(gtt)[18122,18195]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161217,161291]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349227.1 Synechococcus phage S-RIM2 isolate Fa_10_0709, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccctagctcagtggttagagcagggtttgttaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
cgggtcagatccgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161239,161313]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349228.1 Synechococcus phage S-RIM2 isolate Fa_24_0709, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccctagctcagtggttagagcagggtttgttaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
cgggtcagatccgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt

aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161237,161311]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349229.1 Synechococcus phage S-RIM2 isolate LIS_01_1010, complete genome

1-1tRNA-Val(tac)[13895,13966]
gcccgaaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17892,17978]
tgggagtatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtcctctactcctat
1-3tRNA-Thr(tgt)[18035,18110]
gccttctagctcagctggatagagcaacggttttaaaccgtaggtcg
tcggttcaagtccgacagaaggctcc
1-4tRNA-Ala(tgc)[18112,18187]
tggggaattagctcagttggtagtagcgtttgcttgaagcaaatgtc
agcggttcgagtcgcctattctccat
1-5tRNA-Asn(gtt)[18233,18306]
ttcctcagtagctcagcggcagagctatcgactgttaatcgattggctcg
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[160889,160963]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349230.1 Synechococcus phage S-RIM2 isolate LIS_02_1013, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaaatagctcagcggtagagcacctcgttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtcctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggtagagcagggtttgtaaagctcaggtcgca
agttcaaatcttgcaggggctc
1-4tRNA-Ala(tgc)[18352,18425]
ggggaattagctcagtcgtggtagagcgcttgcattgaagcaggatgtca
gcggttcgagtcgcctattctcca
1-5tRNA-Asn(gtt)[18472,18545]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggctcg
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161584,161658]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349231.1 Synechococcus phage S-RIM2 isolate LIS_06_1010, complete genome

1-1tRNA-Val(tac)[13904,13975]

gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17901,17987]
tgggagtatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[18044,18116]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18462,18535]
ggggaattagctcagtcgtgtagagcgctgctttgcaagcaggatgtca
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18582,18655]
ttcctcagtagctcagcggcagagctatcgactgttaatcgattggctgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161246,161320]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349232.1 Synechococcus phage S-RIM2 isolate LIS_09_1010, complete genome

1-1tRNA-Val(tac)[13785,13856]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17783,17867]
gggagtatggcggaatcggtagacgcaccagactaaaattgttgaggg
ttaacctcgtgagagttcaagtctctactccta
1-3tRNA-Thr(tgt)[17925,17997]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18000,18072]
ggggaattagctcagttggttagagcgctgctttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18119,18192]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggctgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161238,161312]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349233.1 Synechococcus phage S-RIM2 isolate LIS_11_1010, complete genome

1-1tRNA-Val(tac)[13806,13877]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17804,17888]
gggagtatggcggaatcggtagacgcaccagactaaaattgttgaggg
ttaacctcgtgagagttcaagtctctactccta
1-3tRNA-Thr(tgt)[17946,18018]

gccccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18021,18093]
ggggaattagctcagttggtagagcgctctgttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18140,18213]
ttctcagtagctcagcggcagagccatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161254,161328]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgaccgt

>KX349234.1 Synechococcus phage S-RIM2 isolate LIS_12_1010, complete genome

1-1tRNA-Val(tac)[13892,13963]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17889,17975]
tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[18032,18105]
gccccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctcc
1-4tRNA-Ala(tgc)[18107,18182]
tggggaattagctcagtcgtggtagagcgctctgttgcaagcaggatgtc
agcggttcgagtcgctattctccat
1-5tRNA-Asn(gtt)[18228,18301]
ttctcagtagctcagcggcagagctatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[160890,160964]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgaccgt

>KX349235.1 Synechococcus phage S-RIM2 isolate LIS_14_1013, complete genome

1-1tRNA-Val(tac)[13797,13868]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17794,17880]
tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17937,18009]
gccccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18012,18084]
ggggaattagctcagttggtagagcgctctgttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18131,18204]

ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatacctacgtgggagt
1-6tRNA-Arg(tct)[161246,161320]
tgggtcagtagctcagcggatagagcaaccgccttctaagcgggtggtcg
caggttcaaatacctgcctgacccgt

>KX349236.1 Synechococcus phage S-RIM2 isolate NJ_05_1013, complete genome

1-1tRNA-Val(tac)[13791,13862]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17788,17874]
tgggagtagtggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17931,18003]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatacctgtcaggggctc
1-4tRNA-Ala(tgc)[18006,18078]
ggggaattagctcagttggttagagcgctgcttgcagcaggatgtcag
cgggtcgagtcgctatttcca
1-5tRNA-Asn(gtt)[18125,18198]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatacctacgtgggagt
1-6tRNA-Arg(tct)[160088,160162]
tgggtcagtagctcagcggatagagcaaccgccttctaagcgggtggtcg
caggttcaaatacctgcctgacccgt

>KX349237.1 Synechococcus phage S-RIM2 isolate Np_01_0709, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17792,17876]
gggagtagtggcggaatcggtagacgcaccagacttaaaattgttgagg
ttaacctcgtgagagttcaagtctctactccta
1-3tRNA-Thr(tgt)[17934,18006]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatacctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggttagagcgctgcttgcagcaggatgtcag
cgggtcgagtcgctatttcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtgccgcagcggtagcgcagttgactgtaataatgggtcgc
aagttcgaatactgcctgggagt
1-6tRNA-Arg(tct)[161147,161221]
tgggtcagtagctcagcggatagagcaaccgccttctaagcgggtggtcg
caggttcaaatacctgcctgacccgt

>KX349238.1 Synechococcus phage S-RIM2 isolate Np_01_1112, complete genome

1-tRNA-Val(tac)[13794,13865]
gccccaatagctcagcggtagacacctcggttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgaggatgatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggttagagcgctgctttgcaagcaggatgtcag
cgggtcagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggctgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161239,161313]
tgggtcagtagctcagcggtagagcaaccgccttctaagcgggttggtcg
caggttcaaatcctgcctgacccgt

>KX349239.1 Synechococcus phage S-RIM2 isolate Np_03_0709, complete genome

1-tRNA-Val(tac)[13794,13865]
gccccaatagctcagcggtagacacctcggttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgaggatgatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggttagagcgctgctttgcaagcaggatgtcag
cgggtcagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggctgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161241,161315]
tgggtcagtagctcagcggtagagcaaccgccttctaagcgggttggtcg
caggttcaaatcctgcctgacccgt

>KX349240.1 Synechococcus phage S-RIM2 isolate Np_03_1112, complete genome

1-tRNA-Val(tac)[13785,13856]
gccccaatagctcagcggtagacacctcggttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17783,17867]
gggagatgatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactccta

1-3tRNA-Thr(tgt)[17925,17997]
gccccctagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18000,18072]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcagatccgctatttctcca
1-5tRNA-Asn(gtt)[18119,18192]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[160071,160145]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349241.1 Synechococcus phage S-RIM2 isolate Np_04_1112, complete genome

1-1tRNA-Val(tac)[13797,13868]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17795,17879]
gggagtatggcggaatcggtagacgcaccagacttaaaattgttgaggg
ttaacctcgtgagagttcaagtctcttactccta
1-3tRNA-Thr(tgt)[17937,18009]
gccccctagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18012,18084]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcagatccgctatttctcca
1-5tRNA-Asn(gtt)[18131,18204]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161244,161318]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349242.1 Synechococcus phage S-RIM2 isolate Np_06_0912, complete genome

1-1tRNA-Val(tac)[13799,13870]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17797,17881]
gggagtatggcggaatcggtagacgcaccagacttaaaattgttgaggg
ttaacctcgtgagagttcaagtctcttactccta
1-3tRNA-Thr(tgt)[17939,18011]
gccccctagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18014,18086]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcagatccgctatttctcca

1-5tRNA-Asn(gtt)[18133,18206]
ttcctcagtagcgtagcgtagcagtgactgtaataatgggtcgc
aagttcgaatcttgctggggagt
1-6tRNA-Arg(tct)[161247,161321]
tgggtcagtagctcagcgtagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgaccgt

>KX349243.1 Synechococcus phage S-RIM2 isolate Np_11_1112, complete genome

1-1tRNA-Val(tac)[13800,13871]
gcccgaatagctcagcgtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgctctcgggca
1-2tRNA-Leu(taa)[17797,17883]
tgggagtagcggaatcgtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17940,18012]
gccccgtagctcagtgtagagcaggcctttgtaaagctcaggtcgca
agttcaaatcttgtaggggctc
1-4tRNA-Ala(tgc)[18015,18087]
ggggaattagctcagttgtagagcgctgcttgcaagcaggatgtcag
cgggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18134,18207]
ttcctcagtagctcagcgtagagccatcgactgtaatacgattggtcgt
aggttcaaatcctacgtggggagt
1-6tRNA-Arg(tct)[161249,161323]
tgggtcagtagctcagcgtagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgaccgt

>KX349244.1 Synechococcus phage S-RIM2 isolate Np_12_0912, complete genome

1-1tRNA-Val(tac)[13797,13868]
gcccgaatagctcagcgtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgctctcgggca
1-2tRNA-Leu(taa)[17794,17880]
tgggagtagcggaatcgtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17937,18009]
gccccgtagctcagtgtagagcaggcctttgtaaagctcaggtcgca
agttcaaatcttgtaggggctc
1-4tRNA-Ala(tgc)[18012,18084]
ggggaattagctcagttgtagagcgctgcttgcaagcaggatgtcag
cgggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18131,18204]
ttcctcagtagcgtagcgtagcagtgactgtaataatgggtcgc
aagttcgaatcttgctggggagt
1-6tRNA-Arg(tct)[161247,161321]
tgggtcagtagctcagcgtagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgaccgt

>KX349245.1 Synechococcus phage S-RIM2 isolate Np_14_0912, complete genome

1-1tRNA-Val(tac)[13782,13853]
ccccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17779,17865]
tgggagtagggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17922,17994]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[17997,18069]
ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18116,18189]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161229,161303]
tgggtcagtagctcagcggtatagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349246.1 Synechococcus phage S-RIM2 isolate Np_15_0709, complete genome

1-1tRNA-Val(tac)[13809,13880]
ccccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17806,17892]
tgggagtagggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17949,18021]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18024,18096]
ggggaattagctcagttggttagagcgctgcttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18143,18216]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161262,161336]
tgggtcagtagctcagcggtatagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349247.1 Synechococcus phage S-RIM2 isolate Np_15_1112, complete genome

1-1tRNA-Val(tac)[13794,13865]
ccccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtagggcggaatcggtagacgcaccagacttaaaattgttgagg

gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggttagagcgctgctttgcaagcaggatgtcag
cgggtcagtcgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggctgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161244,161318]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349248.1 Synechococcus phage S-RIM2 isolate Np_19_1112, complete genome

1-1tRNA-Val(tac)[13788,13859]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17785,17871]
tgggagtagggcgaatcggttagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17928,18000]
gccccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18003,18075]
ggggaattagctcagttggttagagcgctgctttgcaagcaggatgtcag
cgggtcagtcgctattctcca
1-5tRNA-Asn(gtt)[18122,18195]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggctgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[160075,160149]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349250.1 Synechococcus phage S-RIM2 isolate Np_23_1112, complete genome

1-1tRNA-Val(tac)[13797,13868]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17795,17879]
gggagtagggcgaatcggttagacgcaccagactaaaattgttgaggg
ttaacctcgtgagagttcaagtctctactccta
1-3tRNA-Thr(tgt)[17937,18009]
gccccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18012,18084]
ggggaattagctcagttggttagagcgctgctttgcaagcaggatgtcag

cggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18131,18204]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161244,161318]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349251.1 Synechococcus phage S-RIM2 isolate Np_24_1112, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctcttactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcagggctttgtaaagctcaggtcgca
agttcaaatcttgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161240,161314]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349252.1 Synechococcus phage S-RIM2 isolate Np_31_1112, complete genome

1-1tRNA-Val(tac)[13782,13853]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17780,17864]
gggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
ttaacctcgtgagagttcaagtctcttactccta
1-3tRNA-Thr(tgt)[17922,17994]
gccccgtagctcagtggttagagcagggctttgtaaagctcaggtcgca
agttcaaatcttgtcaggggctc
1-4tRNA-Ala(tgc)[17997,18069]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18116,18189]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161231,161305]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg

caggttcaaatcctgcctgacccgt

>KX349253.1 Synechococcus phage S-RIM2 isolate Np_33_0912, complete genome

1-tRNA-Val(tac)[13791,13862]

gccccaatagctcagcggtagacacctcgttacaccgagattgtcggc

ggttcgatcccgctcttcgggca

1-2tRNA-Leu(taa)[17788,17874]

tgggagtatggcgaatcggtagacgcaccagactaaaattgttgagg

gttaacctcgtgagagttcaagtctctactcctat

1-3tRNA-Thr(tgt)[17931,18003]

gccccctagctcagtggtagagcaggcctttgtaaagctcaggtcgca

agttcaaatctgtcaggggctc

1-4tRNA-Ala(tgc)[18006,18078]

ggggaattagctcagttggtagagcgctgcttgcagcaggatgtcag

cgggtcagatccgctattctcca

1-5tRNA-Asn(gtt)[18125,18198]

ttctcagtagctcagcggcagagccatcgactgttaatcgattggctgt

aggttcaaatcctacctggggagt

1-6tRNA-Arg(tct)[161244,161318]

tgggtcagtagctcagcggtagagcaaccgccttctaagcggttggtcg

caggttcaaatcctgcctgacccgt

>KX349254.1 Synechococcus phage S-RIM2 isolate Np_36_1112, complete genome

1-tRNA-Val(tac)[13803,13874]

gccccaatagctcagcggtagacacctcgttacaccgagattgtcggc

ggttcgatcccgctcttcgggca

1-2tRNA-Leu(taa)[17800,17886]

tgggagtatggcgaatcggtagacgcaccagactaaaattgttgagg

gttaacctcgtgagagttcaagtctctactcctat

1-3tRNA-Thr(tgt)[17943,18015]

gccccctagctcagtggtagagcaggcctttgtaaagctcaggtcgca

agttcaaatctgtcaggggctc

1-4tRNA-Ala(tgc)[18018,18090]

ggggaattagctcagttggtagagcgctgcttgcagcaggatgtcag

cgggtcagatccgctattctcca

1-5tRNA-Asn(gtt)[18137,18210]

ttctcagtagctcagcggcagagccatcgactgttaatcgattggctgt

aggttcaaatcctacctggggagt

1-6tRNA-Arg(tct)[161247,161321]

tgggtcagtagctcagcggtagagcaaccgccttctaagcggttggtcg

caggttcaaatcctgcctgacccgt

>KX349255.1 Synechococcus phage S-RIM2 isolate RW_01_0709, complete genome

1-tRNA-Val(tac)[13791,13862]

gccccaatagctcagcggtagacacctcgttacaccgagattgtcggc

ggttcgatcccgctcttcgggca

1-2tRNA-Leu(taa)[17789,17873]

gggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
ttaacctcgtgagagttcaagtctcttactccta
1-3tRNA-Thr(tgt)[17931,18003]
gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18006,18078]
ggggaattagctcagttggttagagcgcttgcgaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18125,18198]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161188,161262]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349256.1 Synechococcus phage S-RIM2 isolate RW_02_0113, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctcttactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggttagagcgcttgcgaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161241,161315]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349257.1 Synechococcus phage S-RIM2 isolate RW_02_0709, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctcttactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]

ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcagtcgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161238,161312]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349258.1 Synechococcus phage S-RIM2 isolate RW_03_0709, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcagcacctttacacggatgaatgcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtagtcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcagtcgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161235,161309]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349259.1 Synechococcus phage S-RIM2 isolate RW_08_1112, complete genome

1-1tRNA-Val(tac)[13797,13868]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17794,17880]
tgggagtagtcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17937,18009]
gccccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18012,18084]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcagtcgctattctcca
1-5tRNA-Asn(gtt)[18131,18204]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[160080,160154]

tgggtcagtagctcagcggatagagcaaccgccttctaagcgggttggtcg
 caggttcaaatcctgcctgacccgt
 >KX349260.1 Synechococcus phage S-RIM2 isolate RW_11_0905, complete genome
 1-1tRNA-Val(tac)[13794,13865]
 gccccaatagctcagcggtagagcacctcgtttacaccgagattgtcggg
 ggttcgatcccctcttcgggca
 1-2tRNA-Leu(taa)[17791,17877]
 tgggagtagtggcggaatcggtagacgcaccagacttaaaattgttgagg
 gttaacctcgtgagagtcaagtctcttactcctat
 1-3tRNA-Thr(tgt)[17934,18006]
 gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
 agttcaaatctgtcaggggctc
 1-4tRNA-Ala(tgc)[18009,18081]
 ggggaattagctcagttggttagagcgcctgcttgcaagcaggatgtcag
 cgggttcgagtcgcgtattctcca
 1-5tRNA-Asn(gtt)[18128,18201]
 ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
 aggttcaaatcctacctggggagt
 1-6tRNA-Arg(tct)[161242,161316]
 tgggtcagtagctcagcggatagagcaaccgccttctaagcgggttggtcg
 caggttcaaatcctgcctgacccgt
 >KX349261.1 Synechococcus phage S-RIM2 isolate RW_12_0113, complete genome
 1-1tRNA-Val(tac)[13797,13868]
 gccccaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
 ggttcgatcccgtcttcgggca
 1-2tRNA-Leu(taa)[17794,17880]
 tgggagtagtggcggaatcggtagacgcaccagacttaaaattgttgagg
 gttaacctcgtgagagtcaagtctcttactcctat
 1-3tRNA-Thr(tgt)[17937,18009]
 gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
 agttcaaatctgtcaggggctc
 1-4tRNA-Ala(tgc)[18012,18084]
 ggggaattagctcagttggttagagcgcctgcttgcaagcaggatgtcag
 cgggttcgagtcgcgtattctcca
 1-5tRNA-Asn(gtt)[18131,18204]
 ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
 aggttcaaatcctacctggggagt
 1-6tRNA-Arg(tct)[160702,160776]
 tgggtcagtagctcagcggatagagcaaccgccttctaagcgggttggtcg
 caggttcaaatcctgcctgacccgt
 >KX349262.1 Synechococcus phage S-RIM2 isolate RW_12_0709, complete genome
 1-1tRNA-Val(tac)[13794,13865]
 gccccaatagctcagcggtagagcacctcgtttacaccgagattgtcggg
 ggttcgatcccctcttcgggca

1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccctagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcagatccgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[160952,161026]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349263.1 Synechococcus phage S-RIM2 isolate RW_14_1112, complete genome

1-1tRNA-Val(tac)[13803,13874]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17800,17886]
tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17943,18015]
gccccctagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18018,18090]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcagatccgctattctcca
1-5tRNA-Asn(gtt)[18137,18210]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161250,161324]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349264.1 Synechococcus phage S-RIM2 isolate RW_16_0905, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17792,17876]
gggagtatggcggaatcggtagacgcaccagacttaaaattgttgaggg
ttaacctcgtgagagttcaagtctctactccta
1-3tRNA-Thr(tgt)[17934,18006]
gccccctagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc

1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgcctgctttgcaagcaggatgtcag
cggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161240,161314]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349265.1 Synechococcus phage S-RIM2 isolate RW_17_0113, complete genome

1-1tRNA-Val(tac)[13785,13856]
gccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17782,17868]
tgggagtatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17925,17997]
gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatcttgtcaggggctc
1-4tRNA-Ala(tgc)[18000,18072]
ggggaattagctcagttggtagagcgcctgctttgcaagcaggatgtcag
cggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18119,18192]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161231,161305]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349266.1 Synechococcus phage S-RIM2 isolate RW_26_0905, complete genome

1-1tRNA-Val(tac)[13794,13865]
gccgaatagctcagcggtagagcacctcgttacaccgagattgtcggg
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17792,17876]
gggagtatggcggaatcggtagacgcaccagactaaaattgttgaggg
ttaacctcgtgagagttcaagtctctactccta
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatcttgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgcctgctttgcaagcaggatgtcag
cggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt

1-6tRNA-Arg(tct)[160078,160152]
 tgggtcagtagctcagcgtagagcaaccgccttctaagcgggtggtcg
 caggttcaaatcctgcctgacccgt

>KX349267.1 Synechococcus phage S-RIM2 isolate RW_29_1112, complete genome

1-1tRNA-Val(tac)[13797,13868]
 gcccgaaatagctcagcgtagagcacctcgttacaccgagattgtcggg
 ggttcgatcccctcttcgggca

1-2tRNA-Leu(taa)[17795,17879]
 gggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
 ttaacctcgtgagagttcaagtctcttactccta

1-3tRNA-Thr(tgt)[17937,18009]
 gccccctagctcagtggttagagcaggcctttgtaaagctcaggtcgca
 agttcaaatctgtcaggggctc

1-4tRNA-Ala(tgc)[18012,18084]
 ggggaattagctcagttggttagagcgctgctttgcaagcaggatgtcag
 cgggtcagagtcgctatttcca

1-5tRNA-Asn(gtt)[18131,18204]
 ttctcagtagctcagcgagagccatcgactgttaatcgattggtcgt
 aggttcaaatcctacctggggagt

1-6tRNA-Arg(tct)[161241,161315]
 tgggtcagtagctcagcgtagagcaaccgccttctaagcgggtggtcg
 caggttcaaatcctgcctgacccgt

>KX349268.1 Synechococcus phage S-RIM2 isolate RW_30_0905, complete genome

1-1tRNA-Val(tac)[13797,13868]
 gcccgaaatagctcagcgtagagcacctcgttacaccgagattgtcggg
 ggttcgatcccgtcttcgggca

1-2tRNA-Leu(taa)[17794,17880]
 tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
 gttaacctcgtgagagttcaagtctcttactcctat

1-3tRNA-Thr(tgt)[17937,18009]
 gccccctagctcagtggttagagcaggcctttgtaaagctcaggtcgca
 agttcaaatctgtcaggggctc

1-4tRNA-Ala(tgc)[18012,18084]
 ggggaattagctcagttggttagagcgctgctttgcaagcaggatgtcag
 cgggtcagagtcgctatttcca

1-5tRNA-Asn(gtt)[18131,18204]
 ttctcagtagctcagcgagagccatcgactgttaatcgattggtcgt
 aggttcaaatcctacctggggagt

1-6tRNA-Arg(tct)[161243,161317]
 tgggtcagtagctcagcgtagagcaaccgccttctaagcgggtggtcg
 caggttcaaatcctgcctgacccgt

>KX349269.1 Synechococcus phage S-RIM2 isolate RW_34_0905, complete genome

1-1tRNA-Val(tac)[13796,13867]
 gcccgaaatagctcagcgtagagcacctcgttacaccgagattgtcggc

ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17793,17879]
tgggagtatggcgaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17936,18008]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18011,18083]
ggggaattagctcagttggtagagcgctgtttgcaagcaggatgtcag
cgggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18130,18203]
ttctcagtagctcagcggcagagccatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161241,161315]
tgggtcagtagctcagcggatagagcaaccgccttctaagcgggttggtcg
caggttcaaatcctgcctgacctgt

>KX349270.1 Synechococcus phage S-RIM2 isolate RW_40_1112, complete genome

1-1tRNA-Val(tac)[13797,13868]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17794,17880]
tgggagtatggcgaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17937,18009]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18012,18084]
ggggaattagctcagttggtagagcgctgtttgcaagcaggatgtcag
cgggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18131,18204]
ttctcagtagctcagcggcagagccatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161243,161317]
tgggtcagtagctcagcggatagagcaaccgccttctaagcgggttggtcg
caggttcaaatcctgcctgacctgt

>KX349271.1 Synechococcus phage S-RIM2 isolate Sn_25_0709, complete genome

1-1tRNA-Val(tac)[13800,13871]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17797,17883]
tgggagtatggcgaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17940,18012]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca

agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18015,18087]
ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
cgggtcagatccgctattctcca
1-5tRNA-Asn(gtt)[18134,18207]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161246,161320]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349272.1 Synechococcus phage S-RIM2 isolate W1_01_0709, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtagtgccggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtcctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccctagctcagtggttagagcaggcctttgttaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattatctcagttggtagagcgctgcttgcaagcaggatgtcag
cgggtcagatccgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161238,161312]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349273.1 Synechococcus phage S-RIM2 isolate W1_01_0910, complete genome

1-1tRNA-Val(tac)[13895,13966]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17892,17978]
tgggagtagtgccggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtcctctactcctat
1-3tRNA-Thr(tgt)[18035,18108]
gccccctagctcagtggttagagcaggcctttgttaaagctcaggtcgca
agttcaaatctgtcaggggctcc
1-4tRNA-Ala(tgc)[18110,18185]
tggggaattagctcagtcgtggtagagcgctgcttgcaagcaggatgtc
agcggttcagatccgctattctccat
1-5tRNA-Asn(gtt)[18231,18304]
ttcctcagtagctcagcggcagagctatcgactgtaatcgattggtcgt

aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161117,161191]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349274.1 Synechococcus phage S-RIM2 isolate W1_03_0709, complete genome

1-1tRNA-Val(tac)[13895,13966]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17892,17978]
tgggagtatggcgaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtcctctactcctat
1-3tRNA-Thr(tgt)[18035,18107]
gccccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatcttgcaggggctc
1-4tRNA-Ala(tgc)[18453,18526]
ggggaattagctcagtcgtgtagagcgctgcttgaagcaggatgtca
gcggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18573,18646]
ttcctcagtagctcagcggcagagctatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161455,161529]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349275.1 Synechococcus phage S-RIM2 isolate W1_08_0709, complete genome

1-1tRNA-Val(tac)[13895,13966]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17892,17978]
tgggagtatggcgaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtcctctactcctat
1-3tRNA-Thr(tgt)[18035,18108]
gccccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatcttgcaggggctcc
1-4tRNA-Ala(tgc)[18110,18184]
tggggaattagctcagttggtagagcgctgcttgaagcaggatgtca
gcggttcgagtcgctattctccat
1-5tRNA-Asn(gtt)[18230,18303]
ttcctcagtagctcagcggcagagctatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161068,161142]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349276.1 Synechococcus phage S-RIM2 isolate W1_09_0709, complete genome

1-1tRNA-Val(tac)[13794,13865]

gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcgaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggttagagcgctgctttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161239,161313]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349277.1 Synechococcus phage S-RIM2 isolate W1_12_0909, complete genome

1-1tRNA-Val(tac)[13895,13966]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17892,17978]
tgggagtatggcgaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[18035,18108]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctcc
1-4tRNA-Ala(tgc)[18110,18184]
tggggaattagctcagttggttagagcgctgctttgcaagcaggatgtca
gcggttcgagtcgctattctccat
1-5tRNA-Asn(gtt)[18230,18303]
ttcctcagtagctcagcggcagagctatcgactgtaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161116,161190]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>KX349278.1 Synechococcus phage S-RIM2 isolate W1_13_0709, complete genome

1-1tRNA-Val(tac)[13895,13966]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17892,17978]
tgggagtatggcgaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[18035,18108]

gccccctagctcagtggtagagcaggcctttgtaaagctcaggctcgca
agttcaaatcttgcaggggctcc
1-4tRNA-Ala(tgc)[18110,18184]
tggggaattagctcagtggtagagcgctgctttgcaagcaggatgtca
gcggttcgagtcgctattctccat
1-5tRNA-Asn(gtt)[18230,18303]
ttctcagtagctcagcggcagagctatcgactgttaatcgattggcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161119,161193]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgaccgt

>KX349279.1 Synechococcus phage S-RIM2 isolate W1_16_0709, complete genome

1-1tRNA-Val(tac)[13797,13868]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17794,17880]
tgggagataggcgaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17937,18009]
gccccctagctcagtggtagagcaggcctttgtaaagctcaggctcgca
agttcaaatcttgcaggggctc
1-4tRNA-Ala(tgc)[18012,18084]
ggggaattagctcagtggtagagcgctgctttgcaagcaggatgtcag
cgggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18131,18204]
ttctcagtagctcagcggcagagccatcgactgttaatcgattggcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161243,161317]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgaccgt

>KX349280.1 Synechococcus phage S-RIM2 isolate W2_02_0709, complete genome

1-1tRNA-Val(tac)[13895,13966]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17892,17978]
tgggagataggcgaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[18035,18108]
gccccctagctcagtggtagagcaggcctttgtaaagctcaggctcgca
agttcaaatcttgcaggggctcc
1-4tRNA-Ala(tgc)[18110,18184]
tggggaattagctcagtggtagagcgctgctttgcaagcaggatgtca
gcggttcgagtcgctattctccat
1-5tRNA-Asn(gtt)[18230,18303]

ttcctcagtagctcagcggcagagctatcgactgttaatcgattggcgt
aggttcaaactctacctggggagt
1-6tRNA-Arg(tct)[161114,161188]
tgggtcagtagctcagcggatagagcaaccgccttctaagcgggtggtcg
caggttcaaactctgcctgacccgt

>KX349281.1 Synechococcus phage S-RIM2 isolate W2_13_0910, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtagtggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccctagctcagtggttagagcagggtttgttaaagctcaggtcgca
agttcaaactctgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggcgt
aggttcaaactctacctggggagt
1-6tRNA-Arg(tct)[161246,161320]
tgggtcagtagctcagcggatagagcaaccgccttctaagcgggtggtcg
caggttcaaactctgcctgacccgt

>KX349282.1 Synechococcus phage S-RIM2 isolate W2_14_0910, complete genome

1-1tRNA-Val(tac)[13803,13874]
gcccgaatagctcagcggtagagcacctcgttacaccgagattgtcggc
ggttcgatcccgctcttcgggca
1-2tRNA-Leu(taa)[17801,17885]
gggagtagtggcggaatcggtagacgcaccagacttaaaattgttgagg
ttaacctcgtgagagttcaagtctctactccta
1-3tRNA-Thr(tgt)[17943,18015]
gccccctagctcagtggttagagcagggtttgttaaagctcaggtcgca
agttcaaactctgtcaggggctc
1-4tRNA-Ala(tgc)[18018,18090]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18137,18210]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggcgt
aggttcaaactctacctggggagt
1-6tRNA-Arg(tct)[161255,161329]
tgggtcagtagctcagcggatagagcaaccgccttctaagcgggtggtcg
caggttcaaactctgcctgacccgt

>KX349283.1 Synechococcus phage S-RIM2 isolate W2_32_0910, complete genome

1-tRNA-Val(tac)[13883,13954]
gcccgaatagctcagcggtagacacctcgtttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17880,17966]
tgggagatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[18023,18096]
gccccctagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctcc
1-4tRNA-Ala(tgc)[18098,18172]
tggggaattagctcagttggtagagcgctgctttgcaagcaggatgtca
gcggttcgagtcgctattctccat
1-5tRNA-Asn(gtt)[18218,18291]
ttcctcagtagctcagcggcagagctatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161054,161128]
tgggtcagtagctcagcggtagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacctgt

>KX349284.1 Synechococcus phage S-RIM2 isolate W2_39_0910, complete genome

1-tRNA-Val(tac)[13904,13975]
gcccgaatagctcagcggtagacacctcgtttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17901,17987]
tgggagatggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[18044,18117]
gccccctagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcaggggctcc
1-4tRNA-Ala(tgc)[18119,18194]
tggggaattagctcagttggtagagcgctgctttgcaagcaggatgtc
agcgggttcgagtcgctattctccat
1-5tRNA-Asn(gtt)[18240,18313]
ttcctcagtagctcagcggcagagctatcgactgttaatcgattggtcgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161141,161215]
tgggtcagtagctcagcggtagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacctgt

>KJ019031.1 Synechococcus phage ACG-2014d isolate Syn7803C48, complete genome

1-tRNA-Val(tac)[13618,13691]
tgggtgattaactcagtggtagagtactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153722,153796]
tgggcaagtagctcagtggtagagcatcgacttctaatacggttggtcg
ggggttcaaatccctccttgcccgt

1-3tRNA-Asn(gtt)[153817,153890]
 ttccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019035.1 Synechococcus phage ACG-2014d isolate Syn7803C55, complete genome
 1-1tRNA-Val(tac)[11908,11981]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tgggtcaaatccagtattacccat
 1-2tRNA-Arg(tct)[152060,152134]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcg
 ggggttcaaatccctccttggccgt
 1-3tRNA-Asn(gtt)[152155,152228]
 ttccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019036.1 Synechococcus phage ACG-2014d isolate Syn7803C57, complete genome
 1-1tRNA-Val(tac)[13612,13685]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tgggtcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153716,153790]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcg
 ggggttcaaatccctccttggccgt
 1-3tRNA-Asn(gtt)[153811,153884]
 ttccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019047.1 Synechococcus phage ACG-2014d isolate Syn7803C73, complete genome
 1-1tRNA-Val(tac)[13618,13691]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tgggtcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153722,153796]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcg
 ggggttcaaatccctccttggccgt
 1-3tRNA-Asn(gtt)[153817,153890]
 ttccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019048.1 Synechococcus phage ACG-2014d isolate Syn7803C75, complete genome
 1-1tRNA-Val(tac)[13618,13691]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tgggtcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153484,153558]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcg
 ggggttcaaatccctccttggccgt
 1-3tRNA-Asn(gtt)[153579,153652]
 ttccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019062.1 Synechococcus phage ACG-2014d isolate Syn7803C93, complete genome

1-tRNA-Val(tac)[13621,13694]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tgggtcaaatccagtattacccat
1-2tRNA-Arg(tct)[153722,153796]
tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
ggggttcaaatccctccttgcctcgt
1-3tRNA-Asn(gtt)[153817,153890]
ttccaagtagctcagtggttagagccgccgactgttaatcggtggtcgc
tgggtcaaatccagccttgggagt

>KJ019072.1 *Synechococcus* phage ACG-2014d isolate Syn7803US108, complete genome

1-tRNA-Val(tac)[13618,13691]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tgggtcaaatccagtattacccat
1-2tRNA-Arg(tct)[153723,153797]
tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
ggggttcaaatccctccttgcctcgt
1-3tRNA-Asn(gtt)[153818,153891]
ttccaagtagctcagtggttagagccgccgactgttaatcggtggtcgc
tgggtcaaatccagccttgggagt

>KJ019073.1 *Synechococcus* phage ACG-2014d isolate Syn7803US109, complete genome

1-tRNA-Val(tac)[13621,13694]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tgggtcaaatccagtattacccat
1-2tRNA-Arg(tct)[153731,153805]
tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
ggggttcaaatccctccttgcctcgt
1-3tRNA-Asn(gtt)[153826,153899]
ttccaagtagctcagtggttagagccgccgactgttaatcggtggtcgc
tgggtcaaatccagccttgggagt

>KJ019075.1 *Synechococcus* phage ACG-2014d isolate Syn7803US111, complete genome

1-tRNA-Val(tac)[13618,13691]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tgggtcaaatccagtattacccat
1-2tRNA-Arg(tct)[153715,153789]
tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
ggggttcaaatccctccttgcctcgt
1-3tRNA-Asn(gtt)[153810,153883]
ttccaagtagctcagtggttagagccgccgactgttaatcggtggtcgc
tgggtcaaatccagccttgggagt

>KJ019078.1 *Synechococcus* phage ACG-2014d isolate Syn7803US114, complete genome

1-tRNA-Val(tac)[13618,13691]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tgggtcaaatccagtattacccat
1-2tRNA-Arg(tct)[153718,153792]

tgggcaagtagctcagtggtatagagcatcgacttctaatacggttggtcg
 ggggttcaaatccctccttccccgt
 1–3tRNA–Asn(gtt)[153813,153886]
 ttccaagtagctcagtggtcagagccgccgactgttaatcggctggtcgc
 tggttcaaatccagccttgggagt
 >KJ019079.1 Synechococcus phage ACG–2014d isolate Syn7803US115, complete genome
 1–1tRNA–Val(tac)[13618,13691]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
 tggttcaaatccagttattacccat
 1–2tRNA–Arg(tct)[153722,153796]
 tgggcaagtagctcagtggtatagagcatcgacttctaatacggttggtcg
 ggggttcaaatccctccttccccgt
 1–3tRNA–Asn(gtt)[153817,153890]
 ttccaagtagctcagtggtcagagccgccgactgttaatcggctggtcgc
 tggttcaaatccagccttgggagt
 >KJ019112.1 Synechococcus phage ACG–2014d isolate Syn7803US59, complete genome
 1–1tRNA–Val(tac)[13618,13691]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
 tggttcaaatccagttattacccat
 1–2tRNA–Arg(tct)[153722,153796]
 tgggcaagtagctcagtggtatagagcatcgacttctaatacggttggtcg
 ggggttcaaatccctccttccccgt
 1–3tRNA–Asn(gtt)[153817,153890]
 ttccaagtagctcagtggtcagagccgccgactgttaatcggctggtcgc
 tggttcaaatccagccttgggagt
 >KJ019113.1 Synechococcus phage ACG–2014d isolate Syn7803US5, complete genome
 1–1tRNA–Val(tac)[13624,13697]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
 tggttcaaatccagttattacccat
 1–2tRNA–Arg(tct)[153868,153942]
 tgggcaagtagctcagtggtatagagcatcgacttctaatacggttggtcg
 ggggttcaaatccctccttccccgt
 1–3tRNA–Asn(gtt)[153963,154036]
 ttccaagtagctcagtggtcagagccgccgactgttaatcggctggtcgc
 tggttcaaatccagccttgggagt
 >KJ019115.1 Synechococcus phage ACG–2014d isolate Syn7803US61, complete genome
 1–1tRNA–Val(tac)[13627,13700]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
 tggttcaaatccagttattacccat
 1–2tRNA–Arg(tct)[153652,153726]
 tgggcaagtagctcagtggtatagagcatcgacttctaatacggttggtcg
 ggggttcaaatccctccttccccgt
 1–3tRNA–Asn(gtt)[153747,153820]
 ttccaagtagctcagtggtcagagccgccgactgttaatcggctggtcgc

tggttcaaatccagccttgggagt
 >KJ019117.1 Synechococcus phage ACG–2014d isolate Syn7803US63, complete genome
 1–1tRNA–Val(tac)[13603,13676]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
 tggttcaaatccagtattacccat
 1–2tRNA–Arg(tct)[153769,153843]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgc
 ggggttcaaatccctccttgcctcgt
 1–3tRNA–Asn(gtt)[153864,153937]
 ttccaagtagctcagtggttagagccgactgttaatcggtggtcgc
 tggttcaaatccagccttgggagt
 >KJ019119.1 Synechococcus phage ACG–2014d isolate Syn7803US65, complete genome
 1–1tRNA–Val(tac)[13624,13697]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
 tggttcaaatccagtattacccat
 1–2tRNA–Arg(tct)[153777,153851]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgc
 ggggttcaaatccctccttgcctcgt
 1–3tRNA–Asn(gtt)[153872,153945]
 ttccaagtagctcagtggttagagccgactgttaatcggtggtcgc
 tggttcaaatccagccttgggagt
 >KJ019120.1 Synechococcus phage ACG–2014d isolate Syn7803US71, complete genome
 1–1tRNA–Val(tac)[13621,13694]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
 tggttcaaatccagtattacccat
 1–2tRNA–Arg(tct)[153744,153818]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgc
 ggggttcaaatccctccttgcctcgt
 1–3tRNA–Asn(gtt)[153839,153912]
 ttccaagtagctcagtggttagagccgactgttaatcggtggtcgc
 tggttcaaatccagccttgggagt
 >KJ019125.1 Synechococcus phage ACG–2014d isolate Syn7803US82, complete genome
 1–1tRNA–Val(tac)[13621,13694]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
 tggttcaaatccagtattacccat
 1–2tRNA–Arg(tct)[153820,153894]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgc
 ggggttcaaatccctccttgcctcgt
 1–3tRNA–Asn(gtt)[153915,153988]
 ttccaagtagctcagtggttagagccgactgttaatcggtggtcgc
 tggttcaaatccagccttgggagt
 >KJ019127.1 Synechococcus phage ACG–2014d isolate Syn7803US85, complete genome
 1–1tRNA–Val(tac)[13624,13697]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac

tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153708,153782]
tgggcaagtagctcagtgatagagcatcgacttctaatacggttggtcg
ggggttcaaatccctccttccccgt
1-3tRNA-Asn(gtt)[153803,153876]
ttccaagtagctcagtgagagccgccgactgttaatcggttggtcgc
tggttcaaatccagccttgggagt

>KJ019129.1 Synechococcus phage ACG-2014d isolate Syn7803US89, complete genome

1-1tRNA-Val(tac)[13621,13694]
tgggtgattaactcagtggtagagtactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153753,153827]
tgggcaagtagctcagtgatagagcatcgacttctaatacggttggtcg
ggggttcaaatccctccttccccgt
1-3tRNA-Asn(gtt)[153848,153921]
ttccaagtagctcagtgagagccgccgactgttaatcggttggtcgc
tggttcaaatccagccttgggagt

>KJ019130.1 Synechococcus phage ACG-2014d isolate Syn7803US94, complete genome

1-1tRNA-Val(tac)[13622,13695]
tgggtgattaactcagtggtagagtactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153821,153895]
tgggcaagtagctcagtgatagagcatcgacttctaatacggttggtcg
ggggttcaaatccctccttccccgt
1-3tRNA-Asn(gtt)[153916,153989]
ttccaagtagctcagtgagagccgccgactgttaatcggttggtcgc
tggttcaaatccagccttgggagt

>KJ019139.1 Synechococcus phage ACG-2014d isolate Syn7803C108, complete genome

1-1tRNA-Val(tac)[13618,13691]
tgggtgattaactcagtggtagagtactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153817,153891]
tgggcaagtagctcagtgatagagcatcgacttctaatacggttggtcg
ggggttcaaatccctccttccccgt
1-3tRNA-Asn(gtt)[153912,153985]
ttccaagtagctcagtgagagccgccgactgttaatcggttggtcgc
tggttcaaatccagccttgggagt

>KJ019160.1 Synechococcus phage ACG-2014d isolate Syn7803C35, complete genome

1-1tRNA-Val(tac)[13621,13694]
tgggtgattaactcagtggtagagtactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153821,153895]
tgggcaagtagctcagtgatagagcatcgacttctaatacggttggtcg
ggggttcaaatccctccttccccgt

1-3tRNA-Asn(gtt)[153916,153989]
 ttcccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019165.1 Synechococcus phage ACG-2014d isolate Syn7803C40, complete genome
 1-1tRNA-Val(tac)[13620,13693]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tgggtcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153819,153893]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcg
 ggggttcaaatccctccttggccgt
 1-3tRNA-Asn(gtt)[153914,153987]
 ttcccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019032.1 Synechococcus phage ACG-2014d isolate Syn7803C49, complete genome
 1-1tRNA-Val(tac)[13624,13697]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tgggtcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153844,153918]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcg
 ggggttcaaatccctccttggccgt
 1-3tRNA-Asn(gtt)[153939,154012]
 ttcccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019070.1 Synechococcus phage ACG-2014d isolate Syn7803US104, complete genome
 1-1tRNA-Val(tac)[13621,13694]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tgggtcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153868,153942]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcg
 ggggttcaaatccctccttggccgt
 1-3tRNA-Asn(gtt)[153963,154036]
 ttcccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019080.1 Synechococcus phage ACG-2014d isolate Syn7803US116, complete genome
 1-1tRNA-Val(tac)[13618,13691]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tgggtcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153508,153582]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcg
 ggggttcaaatccctccttggccgt
 1-3tRNA-Asn(gtt)[153603,153676]
 ttcccaagtagctcagtgccagagccgccgactgttaatcggctggtcgc
 tgggtcaaatccagccttgggagt

>KJ019121.1 Synechococcus phage ACG-2014d isolate Syn7803US78, complete genome

1-tRNA-Val(tac)[13615,13688]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153719,153793]
tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
ggggttcaaatccctccttccccgt
1-3tRNA-Asn(gtt)[153814,153887]
ttccaagtagctcagtggcagagccgccgactgttaatcggctggtcgc
tggttcaaatccagccttgggagt

>KJ019124.1 *Synechococcus* phage ACG-2014d isolate Syn7803US80, complete genome

1-tRNA-Val(tac)[13624,13697]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153871,153945]
tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
ggggttcaaatccctccttccccgt
1-3tRNA-Asn(gtt)[153966,154039]
ttccaagtagctcagtggcagagccgccgactgttaatcggctggtcgc
tggttcaaatccagccttgggagt

>KJ019118.1 *Synechococcus* phage ACG-2014d isolate Syn7803US64, complete genome

1-tRNA-Val(tac)[13618,13691]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153817,153891]
tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
ggggttcaaatccctccttccccgt
1-3tRNA-Asn(gtt)[153912,153985]
ttccaagtagctcagtggcagagccgccgactgttaatcggctggtcgc
tggttcaaatccagccttgggagt

>KJ019126.1 *Synechococcus* phage ACG-2014d isolate Syn7803US83, complete genome

1-tRNA-Val(tac)[13618,13691]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153814,153888]
tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
ggggttcaaatccctccttccccgt
1-3tRNA-Asn(gtt)[153909,153982]
ttccaagtagctcagtggcagagccgccgactgttaatcggctggtcgc
tggttcaaatccagccttgggagt

>KJ019131.1 *Synechococcus* phage ACG-2014d isolate Syn7803US95, complete genome

1-tRNA-Val(tac)[13618,13691]
tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
tggttcaaatccagtattacccat
1-2tRNA-Arg(tct)[153723,153797]

tgggcaagtagctcagtggttagagcatcgacttctaatacggttggtcg
 ggggttcaaatccctcctgccccgt
 1–3tRNA–Asn(gtt)[153818,153891]
 ttccaagtagctcagtggttagagccgccgactgttaatcggctgggtcgc
 tggttcaaatccagccttgggagt
 >KJ019140.1 Synechococcus phage ACG–2014d isolate Syn7803C109, complete genome
 1–1tRNA–Val(tac)[13618,13691]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tggttcaaatccagttattacccat
 1–2tRNA–Arg(tct)[153726,153800]
 tgggcaagtagctcagtggttagagcatcgacttctaatacggttggtcg
 ggggttcaaatccctcctgccccgt
 1–3tRNA–Asn(gtt)[153821,153894]
 ttccaagtagctcagtggttagagccgccgactgttaatcggctgggtcgc
 tggttcaaatccagccttgggagt
 >KJ019162.1 Synechococcus phage ACG–2014d isolate Syn7803C37, complete genome
 1–1tRNA–Val(tac)[13618,13691]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tggttcaaatccagttattacccat
 1–2tRNA–Arg(tct)[153865,153939]
 tgggcaagtagctcagtggttagagcatcgacttctaatacggttggtcg
 ggggttcaaatccctcctgccccgt
 1–3tRNA–Asn(gtt)[153960,154033]
 ttccaagtagctcagtggttagagccgccgactgttaatcggctgggtcgc
 tggttcaaatccagccttgggagt
 >KJ019164.1 Synechococcus phage ACG–2014d isolate Syn7803C39, complete genome
 1–1tRNA–Val(tac)[13684,13757]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tggttcaaatccagttattacccat
 1–2tRNA–Arg(tct)[153788,153862]
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 ggggttcaaatccctcctgccccgt
 1–3tRNA–Asn(gtt)[153883,153956]
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 tggttcaaatccagccttgggagt
 >KJ019034.1 Synechococcus phage ACG–2014d isolate Syn7803C54, complete genome
 1–1tRNA–Val(tac)[13618,13691]
 tgggtgattaactcagtggttagagtactgctttacacgcagtaggtcac
 tggttcaaatccagttattacccat
 1–2tRNA–Arg(tct)[153817,153891]
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 ggggttcaaatccctcctgccccgt
 1–3tRNA–Asn(gtt)[153912,153985]
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tggttcaaatccagccttgggagt
 >KJ019046.1 Synechococcus phage ACG-2014d isolate Syn7803C72, complete genome
 1-tRNA-Val(tac)[13618,13691]
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 tggttcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153819,153893]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
 ggggttcaaatccctccttggcccg
 1-3tRNA-Asn(gtt)[153914,153987]
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 tggttcaaatccagccttgggagt
 >KJ019050.1 Synechococcus phage ACG-2014d isolate Syn7803C77, complete genome
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 tggttcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153818,153892]
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 ggggttcaaatccctccttggcccg
 1-3tRNA-Asn(gtt)[153913,153986]
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 >KJ019057.1 Synechococcus phage ACG-2014d isolate Syn7803C89, complete genome
 1-tRNA-Val(tac)[13618,13691]
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 tggttcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153722,153796]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
 ggggttcaaatccctccttggcccg
 1-3tRNA-Asn(gtt)[153817,153890]
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 tggttcaaatccagccttgggagt
 >KJ019074.1 Synechococcus phage ACG-2014d isolate Syn7803US110, complete genome
 1-tRNA-Val(tac)[13618,13691]
 tgggtgattaactcagtggttagagtgactgctttacacgcagtaggtcac
 tggttcaaatccagtattacccat
 1-2tRNA-Arg(tct)[153722,153796]
 tgggcaagtagctcagtggttagagcatcgacttctaatacgcttggtcgcg
 ggggttcaaatccctccttggcccg
 1-3tRNA-Asn(gtt)[153817,153890]
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 tggttcaaatccagccttgggagt
 >KJ019077.1 Synechococcus phage ACG-2014d isolate Syn7803US113, complete genome
 1-tRNA-Val(tac)[13621,13694]
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tggttcaaatccagtattacccat
 1–2tRNA–Arg(tct)[153820,153894]
 tgggcaagtagctcagtgatagagcatcgacttctaatacggtggtcg
 ggggttcaaatccctccttgcccgt
 1–3tRNA–Asn(gtt)[153915,153988]
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 tggttcaaatccagccttgggagt
 >KJ019083.1 Synechococcus phage ACG–2014d isolate Syn7803US122, complete genome
 1–1tRNA–Val(tac)[13618,13691]
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 tggttcaaatccagtattacccat
 1–2tRNA–Arg(tct)[153722,153796]
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 ggggttcaaatccctccttgcccgt
 1–3tRNA–Asn(gtt)[153817,153890]
 ttccaagtagctcagtggcagagccgccgactgttaatcggctggtcgc
 tggttcaaatccagccttgggagt
 >AP013540.1 Uncultured Mediterranean phage uvMED DNA, complete genome, group G8, isolate:
 uvMED–CGR–C62A–MedDCM–OCT–S28–C10
 1–1tRNA–Leu(taa)c[26490,26573]
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 ttaggtcgtgagggttcagtcctccctgagca
 >KJ019037.1 Synechococcus phage ACG–2014f isolate Syn7803C58, complete genome
 1–1tRNA–Arg(tct)[129914,129987]
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 ggggttcgagtcctcctgacccg
 1–2tRNA–Asn(gtt)[130201,130272]
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 ggttcgaatccaggttgtggag
 >KJ019045.1 Synechococcus phage ACG–2014f isolate Syn7803C6, complete genome
 1–1tRNA–Arg(tct)[130564,130637]
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 1–2tRNA–Asn(gtt)[130851,130922]
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 ggttcgaatccaggttgtggag
 >KJ019052.1 Synechococcus phage ACG–2014f isolate Syn7803C7, complete genome
 1–1tRNA–Arg(tct)[127858,127931]
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 ttggttcgaatccaacttaaccg
 1–2tRNA–Asn(gtt)[128145,128216]
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 ggttcgaatccaggttgtggag
 >KJ019053.1 Synechococcus phage ACG–2014f isolate Syn7803C80, complete genome

1-tRNA-Arg(tct)[130447,130520]
gggtcagtagctcagatggatagagcaattcacttctaataatggtcgcg
ggggttcgagtcacctcctgacccg

1-2tRNA-Asn(gtt)[130734,130805]
tccacaatagctcagcggtagagtcggcgactgttaatgccttgtccct
ggttcgaatccagggtgtggag

>KJ019058.1 Synechococcus phage ACG-2014f isolate Syn7803C8, complete genome
1-tRNA-Arg(tct)[128055,128128]
gggttaatagctcagctggacagagcaacgctcttctaagcgtcggtcg
ttggttcgaatccaacttaacccg

1-2tRNA-Asn(gtt)[128342,128413]
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ggttcgaatccagggtgtggag

>KJ019066.1 Synechococcus phage ACG-2014f isolate Syn7803C9, complete genome
1-tRNA-Arg(tct)[130889,130962]
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ggggttcgagtcacctcctgacccg

1-2tRNA-Asn(gtt)[131176,131247]
tccacaatagctcagcggtagagtcggcgactgttaatgccttgtccct
ggttcgaatccagggtgtggag

>KJ019085.1 Synechococcus phage ACG-2014f isolate Syn7803US13, complete genome
1-tRNA-Arg(tct)[126042,126115]
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ttggttcgaatccaacttaacccg

1-2tRNA-Asn(gtt)[126329,126400]
tccacaatagctcagcggtagagtcggcgactgttaatgccttgtccct
ggttcgaatccagggtgtggag

>KJ019086.1 Synechococcus phage ACG-2014f isolate Syn7803US17, complete genome
1-tRNA-Arg(tct)[128795,128868]
gggttaatagctcagctggacagagcaacgctcttctaagcgtcggtcg
ttggttcgaatccaacttaacccg

1-2tRNA-Asn(gtt)[129082,129153]
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>KJ019090.1 Synechococcus phage ACG-2014f isolate Syn7803US24, complete genome
1-tRNA-Arg(tct)[128060,128133]
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ttggttcgaatccaacttaacccg

1-2tRNA-Asn(gtt)[128347,128418]
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>KJ019091.1 Synechococcus phage ACG-2014f isolate Syn7803US26, complete genome
1-tRNA-Arg(tct)[126211,126284]
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ttggtcgaatccaacttaaccg
 1-2tRNA-Asn(gtt)[126498,126569]
 tccacaatagctcagcggtagctcgcgactgttaatgccttgcct
 ggttcgaatccaggttggag
 >KJ019092.1 Synechococcus phage ACG-2014f isolate Syn7803US2, complete genome
 1-1tRNA-Arg(tct)[129445,129518]
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 ttggtcgaatccaacttaaccg
 1-2tRNA-Asn(gtt)[129732,129803]
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 >KJ019093.1 Synechococcus phage ACG-2014f isolate Syn7803US30, complete genome
 1-1tRNA-Arg(tct)[126955,127028]
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 ttggtcgaatccaacttaaccg
 1-2tRNA-Asn(gtt)[127242,127313]
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 >KJ019095.1 Synechococcus phage ACG-2014f isolate Syn7803US34, complete genome
 1-1tRNA-Arg(tct)[130385,130458]
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 1-2tRNA-Asn(gtt)[130672,130743]
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 >KJ019096.1 Synechococcus phage ACG-2014f isolate Syn7803US36, complete genome
 1-1tRNA-Arg(tct)[128792,128865]
 gggtaatagctcagctggacagagcaacgctcttctaaagcgtcggtcg
 ttggtcgaatccaacttaaccg
 1-2tRNA-Asn(gtt)[129079,129150]
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 >KJ019097.1 Synechococcus phage ACG-2014f isolate Syn7803US37, complete genome
 1-1tRNA-Arg(tct)[131822,131895]
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 1-2tRNA-Asn(gtt)[132109,132180]
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 >KJ019098.1 Synechococcus phage ACG-2014f isolate Syn7803US39, complete genome
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 ggggttcgagtcctcctgacccg
 1-2tRNA-Asn(gtt)[131946,132017]

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 >KJ019099.1 Synechococcus phage ACG-2014f isolate Syn7803US3, complete genome
 1-1tRNA-Arg(tct)[130232,130305]
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 1-2tRNA-Asn(gtt)[130519,130590]
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 >KJ019100.1 Synechococcus phage ACG-2014f isolate Syn7803US40, complete genome
 1-1tRNA-Arg(tct)[128559,128632]
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 1-2tRNA-Asn(gtt)[128846,128917]
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 >KJ019101.1 Synechococcus phage ACG-2014f isolate Syn7803US42, complete genome
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 1-2tRNA-Asn(gtt)[128685,128756]
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 >KJ019102.1 Synechococcus phage ACG-2014f isolate Syn7803US43, complete genome
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 1-2tRNA-Asn(gtt)[129913,129984]
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 >KJ019103.1 Synechococcus phage ACG-2014f isolate Syn7803US44, complete genome
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 1-2tRNA-Asn(gtt)[128778,128849]
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 >KJ019105.1 Synechococcus phage ACG-2014f isolate Syn7803US4, complete genome
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 1-2tRNA-Asn(gtt)[127246,127317]
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>KJ019106.1 *Synechococcus* phage ACG-2014f isolate Syn7803US50, complete genome
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1-2tRNA-Asn(gtt)[128552,128623]
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>KJ019107.1 *Synechococcus* phage ACG-2014f isolate Syn7803US52, complete genome
1-tRNA-Arg(tct)[126562,126635]
gggttaatagctcagctggacagagcaacgctcttctaaagcgtcggtcg
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1-2tRNA-Asn(gtt)[126849,126920]
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>KJ019111.1 *Synechococcus* phage ACG-2014f isolate Syn7803US57, complete genome
1-tRNA-Arg(tct)[126245,126318]
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ttggttcgaatccaacttaaccg
1-2tRNA-Asn(gtt)[126532,126603]
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>KJ019123.1 *Synechococcus* phage ACG-2014f isolate Syn7803US7, complete genome
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ttggttcgaatccaacttaaccg
1-2tRNA-Asn(gtt)[125421,125492]
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>KJ019141.1 *Synechococcus* phage ACG-2014f isolate Syn7803C10, complete genome
1-tRNA-Arg(tct)[126776,126849]
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ttggttcgaatccaacttaaccg
1-2tRNA-Asn(gtt)[127063,127134]
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>KJ019142.1 *Synechococcus* phage ACG-2014f isolate Syn7803C11, complete genome
1-tRNA-Arg(tct)[126895,126968]
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ttggttcgaatccaacttaaccg
1-2tRNA-Asn(gtt)[127182,127253]
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>KJ019143.1 *Synechococcus* phage ACG-2014f isolate Syn7803C12, complete genome
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 ttggtcgaatccaacttaacccg
 1-2tRNA-Asn(gtt)[128456,128527]
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 ggttcgaatccaggttgtggag
 >KJ019144.1 Synechococcus phage ACG-2014f isolate Syn7803C14, complete genome
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 1-2tRNA-Asn(gtt)[126527,126598]
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 >KJ019145.1 Synechococcus phage ACG-2014f isolate Syn7803C15, complete genome
 1-1tRNA-Arg(tct)[129910,129983]
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 ggggttcgagtcacctcctgacccg
 1-2tRNA-Asn(gtt)[130197,130268]
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 >KJ019146.1 Synechococcus phage ACG-2014f isolate Syn7803C16, complete genome
 1-1tRNA-Arg(tct)[129741,129814]
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 ttggtcgaatccaacttaacccg
 1-2tRNA-Asn(gtt)[130028,130099]
 tccacaatagctcagcggtagagtcggcgactgttaatcgccctgtccct
 ggttcgaatccaggttgtggag
 >KJ019147.1 Synechococcus phage ACG-2014f isolate Syn7803C17, complete genome
 1-1tRNA-Arg(tct)[127192,127265]
 gggtcagtagctcagatggatagagcaattcacttctaataaattgggtcg
 ggggttcgagtcacctcctgacccg
 1-2tRNA-Asn(gtt)[127479,127550]
 tccacaatagctcagcggtagagtcggcgactgttaatcgccctgtccct
 ggttcgaatccaggttgtggag
 >KJ019148.1 Synechococcus phage ACG-2014f isolate Syn7803C19, complete genome
 1-1tRNA-Arg(tct)[125246,125319]
 gggtcagtagctcagatggatagagcaattcacttctaataaattgggtcg
 ggggttcgagtcacctcctgacccg
 1-2tRNA-Asn(gtt)[125533,125604]
 tccacaatagctcagcggtagagtcggcgactgttaatcgccctgtccct
 ggttcgaatccaggttgtggag
 >KJ019149.1 Synechococcus phage ACG-2014f isolate Syn7803C21, complete genome
 1-1tRNA-Arg(tct)[127725,127798]
 gggtcagtagctcagatggatagagcaattcacttctaataaattgggtcg
 ggggttcgagtcacctcctgacccg

1-2tRNA-Asn(gtt)[128012,128083]
 tccacaatagctcagcggtagagtcggcgactgttaatcgccctgtccct
 gggtcgaatccagggtgtggag

>KJ019150.1 Synechococcus phage ACG-2014f isolate Syn7803C22, complete genome
 1-1tRNA-Arg(tct)[131303,131376]
 ggggttaatagctcagctggacagagcaacgctcttctaaagcgtcggtcg
 ttgggtcgaatccaacttaaccg
 1-2tRNA-Asn(gtt)[131590,131661]
 tccacaatagctcagcggtagagtcggcgactgttaatcgccctgtccct
 gggtcgaatccagggtgtggag

>KJ019151.1 Synechococcus phage ACG-2014f isolate Syn7803C24, complete genome
 1-1tRNA-Arg(tct)[128601,128674]
 ggggttaatagctcagctggacagagcaacgctcttctaaagcgtcggtcg
 ttgggtcgaatccaacttaaccg
 1-2tRNA-Asn(gtt)[128888,128959]
 tccacaatagctcagcggtagagtcggcgactgttaatcgccctgtccct
 gggtcgaatccagggtgtggag

>KJ019152.1 Synechococcus phage ACG-2014f isolate Syn7803C25, complete genome
 1-1tRNA-Arg(tct)[129664,129737]
 gggtcagtagctcagatggatagagcaattcacttctaatgaattggtcg
 ggggttcgagtcctcctgacccg
 1-2tRNA-Asn(gtt)[129951,130022]
 tccacaatagctcagcggtagagtcggcgactgttaatcgccctgtccct
 gggtcgaatccagggtgtggag

>KJ019155.1 Synechococcus phage ACG-2014f isolate Syn7803C29, complete genome
 1-1tRNA-Arg(tct)[126281,126354]
 ggggttaatagctcagctggacagagcaacgctcttctaaagcgtcggtcg
 ttgggtcgaatccaacttaaccg
 1-2tRNA-Asn(gtt)[126568,126639]
 tccacaatagctcagcggtagagtcggcgactgttaatcgccctgtccct
 gggtcgaatccagggtgtggag

>KJ019159.1 Synechococcus phage ACG-2014f isolate Syn7803C34, complete genome
 1-1tRNA-Arg(tct)[128066,128139]
 ggggttaatagctcagctggacagagcaatactcttctaaagtatcggtcg
 ttgggtcgaatccaacttaaccg
 1-2tRNA-Asn(gtt)[128353,128424]
 tccacaatagctcagcggtagagtcggcgactgttaatcgccctgtccct
 gggtcgaatccagggtgtggag

>KJ019026.1 Synechococcus phage ACG-2014a isolate Syn7803C42, complete genome
 1-1tRNA-Val(tac)[13070,13141]
 gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
 gggtcgatcccctcttcgcca
 1-2tRNA-Leu(taa)[18060,18146]
 tgggagtggtggcggaatcggtagacgcaccagacttaaaatctgttgaga

attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18770,18842]
gcctccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18847,18919]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggtggaggag
1-5tRNA-Arg(tct)[154484,154559]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019030.1 Synechococcus phage ACG-2014a isolate Syn7803C47, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtggcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggtggaggag
1-5tRNA-Arg(tct)[154576,154651]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019033.1 Synechococcus phage ACG-2014a isolate Syn7803C53, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtggcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggtggaggag
1-5tRNA-Arg(tct)[154326,154401]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019038.1 Synechococcus phage ACG-2014a isolate Syn7803C59, complete genome

1-1tRNA-Val(tac)[13064,13135]

gggcgaataactcagcggtagagtgcctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtgcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggtagagcaggcctttgtaaagtcaggtcgca
agttcaaactctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcaggtccaggtggaggag
1-5tRNA-Arg(tct)[154355,154430]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019039.1 Synechococcus phage ACG-2014a isolate Syn7803C60, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgcctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtgcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggtagagcaggcctttgtaaagtcaggtcgca
agttcaaactctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcaggtccaggtggaggag
1-5tRNA-Arg(tct)[154581,154656]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019055.1 Synechococcus phage ACG-2014a isolate Syn7803C86, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgcctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtgcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggtagagcaggcctttgtaaagtcaggtcgca
agttcaaactctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcaggtccaggtggaggag
1-5tRNA-Arg(tct)[154576,154651]

tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019065.1 Synechococcus phage ACG-2014a isolate Syn7803C99, complete genome

1-tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtgcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154470,154545]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019067.1 Synechococcus phage ACG-2014a isolate Syn7803US101, complete genome

1-tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtgcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18765,18837]
gcctccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18842,18914]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154483,154558]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019068.1 Synechococcus phage ACG-2014a isolate Syn7803US102, complete genome

1-tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtgcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc

1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154479,154554]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgacctgt

>KJ019076.1 Synechococcus phage ACG-2014a isolate Syn7803US112, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtggcgaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggttagagcagggtttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[155669,155744]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgacctgt

>KJ019081.1 Synechococcus phage ACG-2014a isolate Syn7803US117, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtggcgaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18765,18837]
gcctccgtagctcagtggttagagcagggtttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18842,18914]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154483,154558]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgacctgt

>KJ019084.1 Synechococcus phage ACG-2014a isolate Syn7803US123, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtggcgaatcggtagacgcaccagacttaaaatctgttgaga

attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggtggaggag
1-5tRNA-Arg(tct)[154480,154555]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019087.1 Synechococcus phage ACG-2014a isolate Syn7803US19, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtggcgaatcggttagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggtggaggag
1-5tRNA-Arg(tct)[154520,154595]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019088.1 Synechococcus phage ACG-2014a isolate Syn7803US1, complete genome

1-1tRNA-Val(tac)[13058,13129]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18048,18134]
tgggagtggtggcgaatcggttagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18758,18830]
gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18835,18907]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggtggaggag
1-5tRNA-Arg(tct)[154558,154633]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019114.1 Synechococcus phage ACG-2014a isolate Syn7803US60, complete genome

1-1tRNA-Val(tac)[13064,13135]

gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtgcggaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18765,18837]
gcctccgtagctcagtggtagagcaggcctttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18842,18914]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcaggtccaggtggaggag
1-5tRNA-Arg(tct)[154483,154558]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019116.1 Synechococcus phage ACG-2014a isolate Syn7803US62, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[17866,17952]
tgggagtggtgcggaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18576,18648]
gcctccgtagctcagtggtagagcaggcctttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18653,18725]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcaggtccaggtggaggag
1-5tRNA-Arg(tct)[153978,154053]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019122.1 Synechococcus phage ACG-2014a isolate Syn7803US79, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtgcggaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggtagagcaggcctttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcaggtccaggtggaggag
1-5tRNA-Arg(tct)[154472,154547]

tggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019135.1 Synechococcus phage ACG-2014a isolate Syn7803C101, complete genome

1-tRNA-Val(tac)[13064,13135]
ggcggaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tggtgagtggtcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154571,154646]
tggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019137.1 Synechococcus phage ACG-2014a isolate Syn7803C104, complete genome

1-tRNA-Val(tac)[13064,13135]
ggcggaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18149,18235]
tggtgagtggtcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18859,18931]
gcctccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18936,19008]
tcctctatagctcagttggtagagcagtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154571,154646]
tggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019138.1 Synechococcus phage ACG-2014a isolate Syn7803C107, complete genome

1-tRNA-Val(tac)[13076,13147]
ggcggaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18066,18152]
tggtgagtggtcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18776,18848]
gcctccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc

1-4tRNA-Asn(gtt)[18853,18925]
tcctctatagctcagttggttagagcaggtgactgttaatcacccctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154577,154652]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019153.1 Synechococcus phage ACG-2014a isolate Syn7803C26, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtggcgaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggttagagcagggtttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggttagagcaggtgactgttaatcacccctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154448,154523]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019157.1 Synechococcus phage ACG-2014a isolate Syn7803C31, complete genome

1-1tRNA-Val(tac)[13159,13230]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18149,18235]
tgggagtggtggcgaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtccttctcccat
1-3tRNA-Thr(tgt)[18859,18931]
gcctccgtagctcagtggttagagcagggtttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18936,19008]
tcctctatagctcagttggttagagcaggtgactgttaatcacccctgtccc
tggttcgagtcagggtggaggag
1-5tRNA-Arg(tct)[154574,154649]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KJ019163.1 Synechococcus phage ACG-2014a isolate Syn7803C38, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtggcgaatcggtagacgcaccagacttaaaatctgttgaga

attaatctcgtgggggtcaagtcaccttctccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggtggaggag
1-5tRNA-Arg(tct)[154470,154545]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgacctgt

>KJ019040.1 Synechococcus phage ACG-2014b isolate Syn7803C61, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggtggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgacctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcgaatcggttagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtcacctcctat
1-5tRNA-Arg(tct)[137804,137878]
tgggtcagtagctcagcggatagagcatgcacttctaatacggttggtcg
caggttcgatccctgcctgacctgt

>KJ019041.1 Synechococcus phage ACG-2014b isolate Syn7803C66, complete genome

1-1tRNA-Thr(tgt)[13046,13118]
gcctccgtagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-2tRNA-Asn(gtt)[13123,13195]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggtggaggag
1-3tRNA-Val(tac)[13198,13269]
gggcgaataactcagcggtagagtgacctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18633,18719]
tgggagtggtggcgaatcggttagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtcacctcctat
1-5tRNA-Arg(tct)[155616,155690]
tgggtcagtagctcagcggatagagcatgcacttctaatacggttggtcg
caggttcgatccctgcctgacctgt

>KJ019042.1 Synechococcus phage ACG-2014b isolate Syn7803C67, complete genome

1-1tRNA-Thr(tgt)[13058,13130]

gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaattctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcgaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcacccccactcctat
1-5tRNA-Arg(tct)[155500,155574]
tgggtcagtagctcagcggatagagcatgcacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019043.1 Synechococcus phage ACG-2014b isolate Syn7803C68, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaattctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcgaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcacccccactcctat
1-5tRNA-Arg(tct)[155502,155576]
tgggtcagtagctcagcggatagagcatgcacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019044.1 Synechococcus phage ACG-2014b isolate Syn7803C69, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaattctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcagggtggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgccctctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18733,18819]
tgggagtggtggcgaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcacccccactcctat
1-5tRNA-Arg(tct)[155495,155569]

tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019049.1 Synechococcus phage ACG-2014b isolate Syn7803C76, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatcttgcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtgcggaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcccccactcctat
1-5tRNA-Arg(tct)[155502,155576]
tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019051.1 Synechococcus phage ACG-2014b isolate Syn7803C78, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatcttgcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtgcggaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcccccactcctat
1-5tRNA-Arg(tct)[155502,155576]
tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019060.1 Synechococcus phage ACG-2014b isolate Syn7803C91, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcgca
agttcaaatcttgcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacctgtccc
tggttcgagtcaggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca

1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggttcaagtcacccactcctat
1-5tRNA-Arg(tct)[155502,155576]
tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019061.1 Synechococcus phage ACG-2014b isolate Syn7803C92, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggttagagcagggtttgttaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacccgtgcc
tgggtcagtcaggtggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatccctcttcgcca

1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggttcaagtcacccactcctat
1-5tRNA-Arg(tct)[155505,155579]
tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019104.1 Synechococcus phage ACG-2014b isolate Syn7803US49, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggttagagcagggtttgttaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacccgtgcc
tgggtcagtcaggtggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatccctcttcgcca

1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggttcaagtcacccactcctat
1-5tRNA-Arg(tct)[155502,155576]
tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019108.1 Synechococcus phage ACG-2014b isolate Syn7803US53, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggttagagcagggtttgttaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggttagagcaggtgactgttaatcacccgtgcc

tggttcgagtcaggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcgtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcggaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcacccactcctat
1-5tRNA-Arg(tct)[155407,155481]
tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019109.1 Synechococcus phage ACG-2014b isolate Syn7803US54, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggtagagcaggcctttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggtagagcaggtgactgttaatcacccgtccc
tggttcgagtcaggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcgtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcggaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcacccactcctat
1-5tRNA-Arg(tct)[155502,155576]
tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019110.1 Synechococcus phage ACG-2014b isolate Syn7803US56, complete genome

1-1tRNA-Thr(tgt)[13153,13225]
gcctccgtagctcagtggtagagcaggcctttgtaaagtcaggtcgca
agttcaaatctgtcagaggctc
1-2tRNA-Asn(gtt)[13230,13302]
tcctctatagctcagttggtagagcaggtgactgttaatcacccgtccc
tggttcgagtcaggaggag
1-3tRNA-Val(tac)[13305,13376]
gggcgaataactcagcgtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18740,18826]
tgggagtggtggcggaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcacccactcctat
1-5tRNA-Arg(tct)[155502,155576]
tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019132.1 Synechococcus phage ACG-2014b isolate Syn9311C1, complete genome

1-1tRNA-Thr(tgt)[13058,13130]

gcctccgtagctcagtggtagagcagggtttgtaaagctcaggtcgca
agttcaaattctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggtagagcaggtgactgttaatcacctgtccc
tgggtcagtcagggtggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcgaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcacccactcctat
1-5tRNA-Arg(tct)[155075,155149]
tgggtcagtagctcagcggatagagcatgcacttctaatacggttggtcg
caggttcgatccctgcctgaccgt

>KJ019133.1 Synechococcus phage ACG-2014b isolate Syn9311C4, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggtagagcagggtttgtaaagctcaggtcgca
agttcaaattctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggtagagcaggtgactgttaatcacctgtccc
tgggtcagtcagggtggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcgaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcacccactcctat
1-5tRNA-Arg(tct)[155688,155762]
tgggtcagtagctcagcggatagagcatgcacttctaatacggttggtcg
caggttcgatccctgcctgaccgt

>KJ019154.1 Synechococcus phage ACG-2014b isolate Syn7803C28, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtggtagagcagggtttgtaaagctcaggtcgca
agttcaaattctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttggtagagcaggtgactgttaatcacctgtccc
tgggtcagtcagggtggaggag
1-3tRNA-Val(tac)[13210,13281]
gggcgaataactcagcggtagagtgctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtggcgaatcggtagacgcaccagactaaaatctgttgaga
attaatctcgtgggggtcaagtcacccactcctat
1-5tRNA-Arg(tct)[155495,155569]

tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>KJ019161.1 Synechococcus phage ACG-2014b isolate Syn7803C36, complete genome

1-1tRNA-Thr(tgt)[13058,13130]
gcctccgtagctcagtgtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-2tRNA-Asn(gtt)[13135,13207]
tcctctatagctcagttgtagagcaggtgactgttaatcacccgtccc
tgggtcagagtcaggaggag
1-3tRNA-Val(tac)[13210,13281]
ggcggaataactcagcggtagagtcctcctttacacggagattgcggg
ggttcgatcccctcttcgcca
1-4tRNA-Leu(taa)[18645,18731]
tgggagtggtgcggaatcggtagacgcaccagactaaaatctgtgaga
attaatctcgtgggggtcaagtcacccactcctat
1-5tRNA-Arg(tct)[155498,155572]
tgggtcagtagctcagcggatagagcatcgacttctaatacggttggtcg
caggttcgatccctgcctgacccgt

>FR852584.1 Staphylococcus phage ISP complete genome

1-1tRNA-Met(cat)c[110656,110727]
ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[133874,133945]
acacccttagtataattagtagtacaagggtcctccaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[133952,134024]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tgggtcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[134030,134105]
tggctcattggtgtaactggttaacacactgccctgtcacggcagagagt
acgagttcagctctcgatgggtcgt

>JX875065.1 Staphylococcus phage SA5, complete genome

1-1tRNA-Asp(gtc)[33538,33613]
tggctcattggtgtaactggttaacacactgccctgtcacggcagagagt
acgagttcagctctcgatgggtcgt
1-2tRNA-Phe(gaa)[33619,33691]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tgggtcaaatccaatagaaacca
1-3tRNA-Trp(cca)[33698,33769]
acacccttagtataattagtagtacaagggtctccaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-4tRNA-Met(cat)[56903,56974]
ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
ggttcgaatcctgcagagtcca

>JX080300.2 Staphylococcus phage Staph1N, complete genome

1-1tRNA-Met(cat)c[14198,14269]
ggactcttagcttaaaggtaaagccaaccgctcataacggtttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[37417,37488]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[37495,37567]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[37573,37648]
tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
acgagttcgagtcctgtatgggtcgt

>JX080301.2 Staphylococcus phage A3R, complete genome

1-1tRNA-Met(cat)c[14073,14144]
ggactcttagcttaaaggtaaagccaaccgctcataacggtttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[37292,37363]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[37370,37442]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[37448,37523]
tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
acgagttcgagtcctgtatgggtcgt

>JX080302.2 Staphylococcus phage 676Z, complete genome

1-1tRNA-Met(cat)c[15120,15191]
ggactcttagcttaaaggtaaagccaaccgctcataacggtttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[38339,38410]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[38417,38489]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[38495,38570]
tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
acgagttcgagtcctgtatgggtcgt

>JX080303.2 Staphylococcus phage Fi200W, complete genome

1-1tRNA-Met(cat)c[15079,15150]
ggactcttagcttaaaggtaaagccaaccgctcataacggtttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[38295,38366]

acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[38373,38445]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[38451,38526]
tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
acgagttcgagtcctgtatgggtcgt

>JX080304.2 Staphylococcus phage MSA6, complete genome

1-1tRNA-Met(cat)c[14722,14793]
ggactcttagcttaaaggtaaagccaaccgctcataacggtttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[37937,38008]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[38015,38087]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[38093,38168]
tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
acgagttcgagtcctgtatgggtcgt

>JX080305.2 Staphylococcus phage P4W, complete genome

1-1tRNA-Met(cat)c[14181,14252]
ggactcttagcttaaaggtaaagccaaccgctcataacggtttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[37397,37468]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[37475,37547]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[37553,37628]
tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
acgagttcgagtcctgtatgggtcgt

>EU418428.2 Staphylococcus phage A5W, complete genome

1-1tRNA-Met(cat)c[14198,14269]
ggactcttagcttaaaggtaaagccaaccgctcataacggtttgactgta
ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[37420,37491]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[37498,37570]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca

1-4tRNA-Asp(gtc)c[37576,37651]
 tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
 acgagttcgagtcctgtatgggtcgt
 >KP687431.1 Staphylococcus phage IME-SA1, complete genome
 1-1tRNA-Trp(cca)c[10772,10843]
 acacccttagtataattagtagtacaagggtctccaaacccttagtctt
 tgtgcaaatcaaagagggtgtg
 1-2tRNA-Phe(gaa)c[10850,10922]
 ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
 tggttcaaatccaatagaaacca
 1-3tRNA-Asp(gtc)c[10928,11003]
 tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
 acgagttcgagtcctgtatgggtcgt
 1-4tRNA-Met(cat)c[127774,127845]
 ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
 gggtcgaatcctgcagagtcca
 >KP687432.1 Staphylococcus phage IME-SA2, complete genome
 1-1tRNA-Met(cat)c[5906,5977]
 ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
 gggtcgaatcctgcagagtcca
 1-2tRNA-Trp(cca)c[29115,29186]
 acacccttagtataattagtagtacaagggtctccaaacccttagtctt
 tgtgcaaatcaaagagggtgtg
 1-3tRNA-Phe(gaa)c[29193,29265]
 ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
 tggttcaaatccaatagaaacca
 1-4tRNA-Asp(gtc)c[29271,29346]
 tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
 acgagttcgagtcctgtatgggtcgt
 >KR902361.1 Staphylococcus phage IME-SA118, complete genome
 1-1tRNA-Met(cat)c[20652,20723]
 ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
 gggtcgaatcctgcagagtcca
 1-2tRNA-Trp(cca)c[43866,43937]
 acacccttagtataattagtagtacaagggtctccaaacccttagtctt
 tgtgcaaatcaaagagggtgtg
 1-3tRNA-Phe(gaa)c[43944,44016]
 ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
 tggttcaaatccaatagaaacca
 1-4tRNA-Asp(gtc)c[44022,44097]
 tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
 acgagttcgagtcctgtatgggtcgt
 >KR908644.1 Staphylococcus phage IME-SA119, complete genome
 1-1tRNA-Asp(gtc)[7628,7703]

tggtcattgggtgtaactggtaacacactgccctgtcacggcagagagt
acgagttcaggtctcgtatgggtcgt
1-2tRNA-Phe(gaa)[7709,7781]
ggtttcttagctcagatggtagacactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-3tRNA-Trp(cca)[7788,7859]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-4tRNA-Met(cat)[31005,31076]
ggactcttagcttaaaggtaaagccaaccgctcataacggttgactgta
ggttcgaatcctgcagagtcca

>KX349285.1 Synechococcus phage S-RIM8 isolate RW_01_0212_WH8101, complete genome

1-1tRNA-Gly(tcc)[13712,13786]
gcggatgtaattcagtggtagaatgtcagcctccaagctgaacgtcagg
ggttcagagtccttatccgctcca
1-2tRNA-Val(tac)[13787,13858]
gggcgattaactcagcggtagagtgccctggttacaccgagtatgtcggg
ggttcgaatccctcatcgcca
1-3tRNA-Leu(taa)[18353,18438]
tgggacggtggcggaatcggtagacgcaccagactaaaatctgtgggc
aatagcccgtgagagttcaagtctctctgctctat
1-4tRNA-Thr(tgt)[19094,19170]
gcctccgtagctcagctggatagagcaacggtttgtaaaccgtaggtcg
tcggttcaagtccgacctggggtcca
1-5tRNA-Ala(tgc)[19171,19243]
ggggaattagctcagttggtagagcgctcttgcaagcaggatgtcag
cggttcagtcgctattctcca
1-6tRNA-Asn(gti)[19268,19342]
ttcctctatagctcagtcggtagagcgttgactgttaatcaaaatgtcc
ctggttcgagcccaggtggaggagt
1-7tRNA-Arg(tct)[157166,157241]
tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
acaggttcgagtcctgtctgacctgt
1-8tRNA-Pro(tgg)[158249,158323]
cgggggtgtagcgagcttggtagcgcggttgctttgggagcaataggtcg
caggttcgaatcctgtcaccggac

>KX349286.1 Synechococcus phage S-RIM8 isolate RW_03_0807_WH8101, complete genome

1-1tRNA-Gly(tcc)[13707,13781]
gcggatgtaattcagtggtagaatgtcagcctccaagctgaacgtcagg
ggttcagagtccttatccgctcca
1-2tRNA-Val(tac)[13782,13853]
gggcgattaactcagtggtagagtgccctggttacaccgagtatgtcggg
ggttcgaatccctcatcgcca
1-3tRNA-Leu(taa)[18348,18433]

tgggacgggtggcggaaatcggtagacgcaccagacttaaaatctgttgggc
aatagccccgtgagagttcaagtctctctgcctat
1-4tRNA-Thr(tgt)[19089,19162]
gcctccgtagctcagctggatagagcaacggttttaaaccgtaggtcg
tcggttcaagtccgaccgtgggct
1-6tRNA-Ala(tgc)[19490,19564]
tggggaattagctcagttggtagagcgctgttgaagcaggatgtca
gcggttcgagtcgcctattctccat
1-7tRNA-Asn(gtt)[19588,19662]
ttcctctatagctcagtcggtagagcggttgactgttaatacaaatgtcc
ctggttcgagcccaggtggaggagt
1-8tRNA-Arg(tct)[155937,156012]
tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
acaggttcgagtcctgtctgaccgt
1-9tRNA-Pro(tgg)[157020,157094]
cggggtgtagcgagcttggtagcgcggttgcttgggagcaataggtcg
caggttcgaatcctgtcaccgccgac

>KX349287.1 Synechococcus phage S-RIM8 isolate RW_06_0613, complete genome

1-1tRNA-Gly(tcc)[13701,13775]
gcggatgtaattcagtggtagaatgtcagcctccaagctgaacgtcagg
ggttcgagtccttatccgctcca
1-2tRNA-Val(tac)[13776,13847]
gggcgattaactcagcggtagagtcctcgttacaccgagtatgtcggg
ggttcgaatccctcatcgcca
1-3tRNA-Leu(taa)[18342,18427]
tgggacgggtggcggaaatcggtagacgcaccagacttaaaatctgttgggc
aatagccccgtgagagttcaagtctctctgcctat
1-4tRNA-Thr(tgt)[19083,19159]
gcctccgtagctcagctggatagagcaacggttttaaaccgtaggtcg
tcggttcaagtccgaccgtgggtcca
1-5tRNA-Ala(tgc)[19160,19232]
ggggaattagctcagttggtagagcgctgttgaagcaggatgtcag
cgggttcgagtcgcctattctcca
1-6tRNA-Asn(gtt)[19257,19331]
ttcctctatagctcagtcggtagagcggttgactgttaatacaaatgtcc
ctggttcgagcccaggtggaggagt
1-7tRNA-Arg(tct)[156851,156926]
tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
acaggttcgagtcctgtctgaccgt
1-8tRNA-Pro(tgg)[157934,158008]
cggggtgtagcgagcttggtagcgcggttgcttgggagcaataggtcg
caggttcgaatcctgtcaccgccgac

>KX349288.1 Synechococcus phage S-RIM8 isolate RW_08_0711, complete genome

1-1tRNA-Gly(tcc)[13701,13775]

gcggatgtaattcagtggtagaatgtcagcctccaagctgaacgtcagg
 ggttcgagtcacctatccgtcca
 1-2tRNA-Val(tac)[13776,13847]
 gggcgattaactcagcggtagagtgcctcgttacaccgagtatgtcggg
 ggttcgaatccctcatcgcca
 1-3tRNA-Leu(taa)[18342,18427]
 tgggacggtggcggaatcggtagacgcaccagacttaaaatctgttgggc
 aatagcccgtagaggtcaagtctctctgtcctat
 1-4tRNA-Thr(tgt)[19083,19159]
 gcctccgtagctcagctggatagagcaacggtttgtaaaccgtaggtcg
 tcggttcaagtcgaccgtgggtcca
 1-5tRNA-Ala(tgc)[19160,19232]
 ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
 cgggttcgagtcgctattctcca
 1-6tRNA-Asn(gtt)[19257,19331]
 ttctctatagctcagtcggtagagcggttgactgttaatcaaaatgtcc
 ctggttcgagcccaggtggaggagt
 1-7tRNA-Arg(tct)[156257,156332]
 tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
 acaggttcgagtcctgtctgacctgt
 1-8tRNA-Pro(tgg)[157340,157414]
 cggggtgtagcgcagcttggtagcgcggttgctttgggagcaataggtcg
 caggttcgaatcctgtcaccccgac

>KX349289.1 Synechococcus phage S-RIM8 isolate RW_22_0300, complete genome

1-1tRNA-Gly(tcc)[13713,13787]
 gcggatgtaattcagtggtagaatgtcagcctccaagctgaacgtcagg
 ggttcgagtcacctatccgtcca
 1-2tRNA-Val(tac)[13788,13859]
 gggcgattaactcagcggtagagtgcctcgttacaccgagtatgtcggg
 ggttcgaatccctcatcgcca
 1-3tRNA-Leu(taa)[18356,18441]
 tgggacggtggcggaatcggtagacgcaccagacttaaaatctgttgggc
 aatagcccgtagaggtcaagtctctctgtcctat
 1-4tRNA-Thr(tgt)[19097,19173]
 gcctccgtagctcagctggatagagcaacggtttgtaaaccgtaggtcg
 tcggttcaagtcgaccgtgggtcca
 1-5tRNA-Ala(tgc)[19174,19246]
 ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
 cgggttcgagtcgctattctcca
 1-6tRNA-Asn(gtt)[19271,19345]
 ttctctatagctcagtcggtagagcggttgactgttaatcaaaatgtcc
 ctggttcgagcccaggtggaggagt
 1-7tRNA-Arg(tct)[156612,156687]
 tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc

acaggttcgagtcctgtctgaccgt
1-8tRNA-Pro(tgg)[157695,157769]
cggggttagcgcagcttggtagcgcggttgctttgggagcaataggtcg
caggttcgaatcctgtcaccgccgac

>KX349290.1 Synechococcus phage S-RIM8 isolate RW_25_1112, complete genome

1-1tRNA-Gly(tcc)[13701,13775]
gcggatgtaattcagtggtagaatgtcagcctccaagctgaacgtcagg
ggttcgagtcacctatccgctcca
1-2tRNA-Val(tac)[13776,13847]
gggcgattaactcagcggtagagtgcctcgtttacaccgagtatgtcggg
ggttcgaatccctcatcgcca
1-3tRNA-Leu(taa)[18342,18427]
tgggacggtggcggaatcggtagacgcaccagacttaaaatctgttgggc
aatagcccgtagagttcaagtctctctgcctat
1-4tRNA-Thr(tgt)[19083,19159]
gcctccgtagctcagctggatagagcaacggtttgtaaacgtaggtcg
tcggttcaagtccgacctgggctcca
1-5tRNA-Ala(tgc)[19160,19232]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-6tRNA-Asn(gtt)[19257,19331]
ttcctctatagctcagtcggtagagcgttgactgttaatcaaaatgtcc
ctggttcgagcccaggtggaggagt
1-7tRNA-Arg(tct)[156851,156926]
tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
acaggttcgagtcctgtctgaccgt
1-8tRNA-Pro(tgg)[157934,158008]
cggggttagcgcagcttggtagcgcggttgctttgggagcaataggtcg
caggttcgaatcctgtcaccgccgac

>HQ317385.1 Synechococcus phage S-RIM8 A.HR5, complete genome

1-1tRNA-Gly(tcc)[13713,13787]
gcggatgtaattcagtggtagaatgtcagcctccaagctgaacgtcagg
ggttcgagtcacctatccgctcca
1-2tRNA-Val(tac)[13788,13859]
gggcgattaactcagcggtagagtgcctcgtttacaccgagtatgtcggg
ggttcgaatccctcatcgcca
1-3tRNA-Leu(taa)[18355,18440]
tgggacggtggcggaatcggtagacgcaccagacttaaaatctgttgggc
aatagcccgtagagttcaagtctctctgcctat
1-4tRNA-Thr(tgt)[19096,19172]
gcctccgtagctcagctggatagagcaacggtttgtaaacgtaggtcg
tcggttcaagtccgacctgggctcca
1-5tRNA-Ala(tgc)[19173,19245]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag

cggttcgagtcgctattctcca
1-6tRNA-Asn(gtt)[19270,19344]
ttcctctatagctcagtcggtagagcgttgactgttaatcaaaatgtcc
ctggttcgagcccaggtggaggagt
1-7tRNA-Arg(tct)[153724,153799]
tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
acaggttcgagtcctgtctgacctgt
1-8tRNA-Pro(tgg)[154807,154881]
cggggtgtagcgcagcttggtagcgcggttgctttgggagcaataggtcg
caggttcgaatcctgtcaccgccgac

>JF974289.1 Synechococcus phage S-RIM8 A.HR3, complete genome

1-1tRNA-Gly(tcc)[13713,13787]
gcggtatgtaattcagtggtagaatgtcagcctccaagctgaacgtcagg
ggttcgagtcacctatccgctcca
1-2tRNA-Val(tac)[13788,13859]
gggcgattaactcagcggtagagtcctcgtttacaccgagtatgtcggg
ggttcgaatccctcatcgccca
1-3tRNA-Leu(taa)[18355,18440]
tgggacggtggcggaatcggtagacgcaccagactaaaatctgttgggc
aatagcccgtagaggtcaagtcctctcgtcctat
1-4tRNA-Thr(tgt)[19096,19172]
gcctccgtagctcagctggatagagcaacggtttgtaaaccgtaggtcg
tcggttcaagtcgacctgggctcca
1-5tRNA-Ala(tgc)[19173,19245]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-6tRNA-Asn(gtt)[19270,19344]
ttcctctatagctcagtcggtagagcgttgactgttaatcaaaatgtcc
ctggttcgagcccaggtggaggagt
1-7tRNA-Arg(tct)[156607,156682]
tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
acaggttcgagtcctgtctgacctgt
1-8tRNA-Pro(tgg)[157690,157764]
cggggtgtagcgcagcttggtagcgcggttgctttgggagcaataggtcg
caggttcgaatcctgtcaccgccgac

>JF974293.1 Cyanophage KBS-M-1A genomic sequence

1-1tRNA-Asn(gtt)c[26777,26851]
ttcctctatagctcagtcggtagagcgttgactgttaatcaaaatgtcc
ctggttcgagcccaggtggaggagt
1-2tRNA-Ala(tgc)c[26876,26948]
ggggaattagctcagttggtagagcgctgctttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-3tRNA-Thr(tgt)c[26949,27025]
gcctccgtagctcagctggatagagcaacggtttgtaaaccgtaggtcg

tcggttcaagtcgaccgtgggtcca
1-4tRNA-Leu(taa)c[27681,27766]
tgggacggtggcggaatcggtagacgaccagacttaaatctgttgggc
aatagcccgtagaggtcaagtctctctgcctat
1-5tRNA-Val(tac)c[32262,32333]
gggcgattaactcagcggtagagtgcctcgttacaccgagatgtcggg
ggttcgaatccctcatcgcca
1-6tRNA-Gly(tcc)c[32334,32408]
gcggatgtaattcagtggtagaatgtcagcctccaagctgaacgtcagg
ggttcgagtccttatccgctcca
1-7tRNA-Pro(tgg)c[59568,59642]
cggggtgtagcgcagcttgtagcgcggttgcttgggagcaataggtcg
caggttcgaatcctgtcaccggac
1-8tRNA-Arg(tct)c[60650,60725]
tgggtcagtagctcagttggatagagcaactgccttctaagcagtcggtc
acaggttcgagtcctgtctgaccgt

>JF704096.1 Mycobacterium phage Ghost, complete sequence

1-1tRNA-Ser(gct)[30462,30545]
ggagggtgagcatcaggtgatgcagcgagattgctaattcccgtaggtaa
ccaccccgtaggttcgaatcctcctccctccgc
1-2tRNA-Leu(cag)[30738,30813]
gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt
gtgagttcgaatctcaccgggagtag
1-3tRNA-Leu(gag)[30933,31007]
gtctctgtaggcaaatcgaaaagccgcatcttgagggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[31008,31081]
gccgtggtaggccatctggcgagccgagttcaagtttcggtgtttgc
gggttcgaatcccggccacggtac
1-5tRNA-SeC(tca)[67487,67583]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgaccggaacatcccggtcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[91444,91518]
cggggtgtagttcagtttgaagagcgttggttgggaccaagatgtcg
caggttcgaatcctgtcaccggac
1-7tRNA-Trp(cca)[91533,91603]
gggtctgtgcacagggtgcccagcgtctcaaagccgaaggcgggggtt
cgattccctcaggcctgcca
1-8tRNA-Tyr(gta)[91605,91691]
cccgtagatgcccactggtgttgggagcaggctgaaatctgtgcct
tcgggacggtgaggttcgattcctcagtcgggacca
1-9tRNA-Pyl(cta)[92745,92818]
tgcgagatcgtgcacggcgactaggagcttctaaccctccgactcgcgg
gttcgactcccgcactctgcaccc

1-10tRNA-Met(cat)[92966,93040]
agcgggtgtagagcagctaggtagctcgccgggctcataaaccggaggacg
cgtgttcgattcacgccaccgccac
1-11tRNA-Cys(gca)[93167,93238]
gcgcctttggcggaatggctacgtgctcggtgcaacccgagttatcccg
gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[93243,93317]
ggtcggttgagtagatggacatctcgccaccctctcaagtgagatca
cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[93319,93392]
gtggccgtagttcagccggtagaacgctgggttgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[93554,93628]
gggcctgtagctccaattggtagagcagcatcctgcaagatgacggctg
tcggttcgaatccgacctggtccac
1-15tRNA-Phe(gaa)[93818,93890]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtggccga
ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[93896,93969]
gtccgttagctcagctggaagagcgctcgggtccacaccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[94088,94160]
gccttcgtagctcagtggttagagctgtcgccctctaagcgataggtcgtt
ggttcgaatccagccgggggcac
1-18tRNA-Glu(ttc)[94165,94241]
ggtcgggtcggtctgctggatggccagtcggatttctactccgacatt
cgcgggttcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[94321,94393]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[94453,94527]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cgggttcgagtcggacagcagcccc
1-21tRNA-Thr(tgt)[94528,94600]
gcctctgtggtccagcggcacggacatccgccttgtaagcggaggacccc
cgttcgatccgggtagaggctc
1-22tRNA-Thr(ggt)[95008,95080]
gctgggttagctcagtggttagagcgttcctctggtatgggaaagggccgg
ggttcaatccccgactcagctc
1-23tRNA-Gly(gcc)[96403,96476]
gcgaaggtagctcagctggcagagcgccaccttgccaaggtggaggtcgc
gggatcgtaacccgttcttcgctc
1-24tRNA-Asp(gtc)[96480,96552]
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gtatcgtaatccgtcagggtcgc
1-25tRNA-Met(cat)[96612,96684]
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ggttcgattccagggtaggtac
1-26tRNA-Ile(gat)[96690,96764]
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gggttcgattcaccgagcaggtac
1-27tRNA-Arg(acg)[96858,96930]
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tgttcgattcgcgctaggggcac
1-28tRNA-Val(gac)[96973,97045]
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ggttcgaaacctcgcatggacac
1-29tRNA-Arg(cct)[97219,97292]
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aggttcgaatcctctcggaggcac
1-31tRNA-Gln(ttg)[97833,97908]
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gcaggttcgagtcctgctaccccatc
1-32tRNA-Arg(tct)[97912,97987]
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gagttcgaatcctccaggggcacca
1-33tRNA-Gln(ctg)[125802,125876]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[125883,125958]
tgggggtgccgttaatcaggcaaacgagcggactgttaatccgccctgc
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>JF704116.1 Mycobacterium phage Drazdys, complete sequence

1-1tRNA-Ser(gct)[31257,31340]
ggagggtgagcatcaggtgatgcagcgagattgctaataccgtacggtaa
ccaccccgtaggttcgaatcctcctccctccgc
1-2tRNA-Leu(cag)[31533,31608]
gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt
gtgagttcgaatctcaccgggagtac
1-3tRNA-Leu(gag)[31728,31802]
gtctctgtaggcaaatcgaaaagccgcatcttgagggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[31803,31876]
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gggttcgaatcccgcacgggtac
1-5tRNA-SeC(tca)[67162,67258]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgaccggaacatcccggtcaacgcgacccagggcc

1-6tRNA-Pro(tgg)[91126,91198]
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ggttcgaatcctgtcaccccgac
1-7tRNA-Trp(cca)[91215,91290]
tggggtgaagccgatctggaaggcagcggtctcaaagccgtctcatagc
gggttcgaatcccggtcaccctgccca
1-8tRNA-Tyr(gta)[91292,91378]
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1-9tRNA-Pyl(cta)[92487,92559]
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gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[92709,92783]
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cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[92910,92981]
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gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[93049,93120]
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gttcgatcctcggtaggtgc
1-13tRNA-His(gtg)[93175,93248]
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1-14tRNA-Ala(tgc)[93919,93992]
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1-15tRNA-Phe(gaa)[94182,94254]
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1-16tRNA-Val(cac)[94260,94333]
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1-17tRNA-Lys(ctt)[94452,94524]
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1-18tRNA-Glu(ttc)[94529,94605]
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cgcgggttcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[94685,94757]
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1-20tRNA-Thr(cgt)[94817,94891]
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 1-22tRNA-Thr(ggt)[95372,95444]
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 1-23tRNA-Gly(gcc)[96767,96840]
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 1-24tRNA-Asp(gtc)[96844,96916]
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 1-25tRNA-Met(cat)[96976,97048]
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 ggttcgattccagggtgaggtac
 1-26tRNA-Ile(gat)[97054,97128]
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 ggtgttcgattaccgagcaggtac
 1-27tRNA-Arg(acg)[97222,97294]
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 tgttcgattcgcgctaggggcac
 1-28tRNA-Val(gac)[97337,97409]
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 1-29tRNA-Arg(cct)[97583,97656]
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 1-31tRNA-Gln(ttg)[98197,98272]
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 1-32tRNA-Arg(tct)[98276,98351]
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 1-33tRNA-Gln(ctg)[126574,126648]
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 ggttcgaatcctaagcgagcagcca
 1-34tRNA-Asn(gtt)[126655,126730]
 tgggggtgccgttaatcaggcaaacgagcggactgttaatccgccctgc
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>JN699625.1 Mycobacterium phage Wally, complete genome

1-tRNA-Ser(gct)[30107,30190]
 ggagggtgagcatctggtgatgcaggggtcctgctaaggccctacggatt
 cacacccgtgagtttcgattactcctccctccgc

1-2tRNA-Leu(cag)[30287,30363]
gccctgctgagcaactggcaaagctgccgattcagagtgcgggtcatt
tccgggttcgactcccgggcagggtac

1-3tRNA-Leu(gag)[30483,30557]
gtctctgtaggcaaatcgaaaagcccatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac

1-4tRNA-Leu(caa)[30558,30631]
gccgtggtaggcatctggcgagccgccgagttcaagttcgggtttgc
gggttcgaatcccgcacgggtac

1-5tRNA-Pro(tgg)[90313,90387]
cggggtgtagttcagtttgaagagcgttggttgggaccaagatgtcg
caggttcgaatcctgtcaccggac

1-6tRNA-Trp(cca)[90402,90472]
gggtctgtgcacagggtccccgacgggtctcaaagccgaagcgggggtt
cgattccctccaggcctcca

1-7tRNA-Tyr(gta)[90474,90560]
cccgatcatgcccaactggtgttgggagcaggctgtaaatctgtggcct
tcgggacggtaggttcgattcctcagtcggggacca

1-8tRNA-Pyl(cta)[91614,91687]
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gttcgactcccgcatctcgaccc

1-9tRNA-Met(cat)[91835,91909]
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cgtgttcgattcacgccaccggac

1-10tRNA-Cys(gca)[92036,92107]
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gttcgactccgggaggcgctc

1-11tRNA-Glu(ctc)[92175,92246]
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1-12tRNA-His(gtg)[92301,92374]
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1-13tRNA-Ala(tgc)[93045,93119]
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1-14tRNA-Phe(gaa)[93309,93381]
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ggttcgattcctcgtgtcggcac

1-15tRNA-Val(cac)[93387,93460]
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agggtcgaaccctgcaatggacac

1-16tRNA-Lys(ctt)[93579,93651]
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1-17tRNA-Glu(ttc)[93656,93732]
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cgcggggtcaattcccgtcccgatcgc
1-18tRNA-Gly(tcc)[93812,93884]
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ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[93966,94040]
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cggttcgagtcggacagcagcccc
1-20tRNA-Thr(tgt)[94041,94113]
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cgttcgatccgggtagaggctc
1-21tRNA-Thr(ggt)[94521,94593]
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1-22tRNA-Gly(gcc)[95916,95989]
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1-23tRNA-Asp(gtc)[95993,96065]
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1-24tRNA-Met(cat)[96125,96197]
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1-25tRNA-Ile(gat)[96203,96277]
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1-26tRNA-Arg(acg)[96371,96443]
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1-27tRNA-Val(gac)[96486,96558]
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1-28tRNA-Arg(cct)[96732,96805]
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1-30tRNA-Gln(ttg)[97346,97421]
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gcaggttcgagtcctgctaccccatc
1-31tRNA-Arg(tct)[97425,97498]
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1-32tRNA-Lys(ttt)[97566,97642]

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gtgggttcgaatcccacccggcccacc
1-33tRNA-Gln(ctg)[125172,125246]
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ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[125253,125328]
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aggttcgaatcctgccaccccagcca

>JN699013.1 Mycobacterium phage Pio, complete genome

1-1tRNA-Ser(gct)[32481,32564]
ggagggtgagcatctggatgcaggggtcctgctaaggccctacggatt
cacaccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[32661,32737]
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tccgggttcgactcccgggcagggtac
1-3tRNA-Leu(gag)[32857,32931]
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cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[32932,33005]
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1-5tRNA-SeC(tca)[70365,70461]
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1-6tRNA-Pro(tgg)[94729,94803]
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caggttcgaatcctgtcaccgccac
1-7tRNA-Trp(cca)[94820,94895]
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1-11tRNA-Cys(gca)[96515,96586]
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1-12tRNA-Glu(ctc)[96654,96725]
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1-13tRNA-His(gtg)[96727,96800]
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1-14tRNA-Ala(tgc)[96962,97036]
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1-15tRNA-Phe(gaa)[97226,97298]
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1-16tRNA-Val(cac)[97304,97377]
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1-17tRNA-Lys(ctt)[97496,97568]
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1-18tRNA-Glu(ttc)[97573,97649]
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1-19tRNA-Gly(tcc)[97729,97801]
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1-21tRNA-Thr(tgt)[97936,98008]
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1-22tRNA-Thr(ggt)[98416,98488]
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ggttcaatccccgattcagctc
1-23tRNA-Gly(gcc)[99811,99884]
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1-24tRNA-Asp(gtc)[99888,99960]
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gtatcgtaatccgtcagggtcgc
1-25tRNA-Met(cat)[100020,100092]
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1-26tRNA-Ile(gat)[100098,100172]
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1-27tRNA-Arg(acg)[100266,100338]

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1-28tRNA-Val(gac)[100381,100453]
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ggttcgaaacctcgcatggacac
1-29tRNA-Arg(cct)[100627,100700]
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1-31tRNA-Gln(ttg)[101241,101316]
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gcagggttcgagtcctgctacccatc
1-32tRNA-Arg(tct)[101320,101395]
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gagttcgaatcctctccaggggcacca
1-33tRNA-Gln(ctg)[127922,127996]
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ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[128003,128078]
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>JQ911768.1 Mycobacterium phage Ava3, complete genome

1-tRNA-Ser(gct)[31611,31694]
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1-2tRNA-Leu(cag)[31791,31867]
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1-3tRNA-Leu(gag)[31987,32061]
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cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[32062,32135]
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gggttcgaatcccgcacgggtac
1-5tRNA-SeC(tca)[67921,68017]
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1-6tRNA-Pro(tgg)[91216,91290]
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1-7tRNA-Trp(cca)[91305,91375]
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cgattccctccaggcctgcca
1-8tRNA-Pyl(cta)[92572,92644]
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gttcgactccggcatggtgcacc
1-9tRNA-Met(cat)[92794,92868]
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cgtgttcgaatcacgccaccgccac
1-10tRNA-Cys(gca)[92995,93066]
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1-11tRNA-Glu(ctc)[93071,93145]
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cgggttcaagtcccgtacggactgc
1-12tRNA-His(gtg)[93147,93220]
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1-13tRNA-Ala(tgc)[93382,93456]
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tcggttcgaatccgacctgggtccac
1-14tRNA-Phe(gaa)[93646,93718]
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1-15tRNA-Val(cac)[93724,93797]
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1-16tRNA-Lys(ctt)[93916,93988]
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1-17tRNA-Glu(ttc)[93993,94069]
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cgcgggttcaattcccgtccgatcgc
1-18tRNA-Gly(tcc)[94149,94221]
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ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[94281,94355]
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cgggtcagtcggacagcagcccc
1-20tRNA-Thr(tgt)[94356,94428]
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1-21tRNA-Thr(ggt)[94488,94560]
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ggttcaatcccccgactcagctc
1-22tRNA-Gly(gcc)[95883,95956]
gcgaagtagctcagctggcagagcgcaccttgccaagtgaggtcgc
gggatcgaacccgttcttcgctc
1-23tRNA-Asp(gtc)[95960,96032]

ggccctgtagctcagaggaagagcgccggtctgtcgaatcgagggtcgcg
gtatcgtaatccgtcagggtcgc
1-24tRNA-Met(cat)[96092,96164]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtaggtac
1-25tRNA-Ile(gat)[96170,96244]
gcctgttagcggactggcgtccgatccaagctgataactggcgtaagc
ggtgttcgattcaccgagcaggtac
1-26tRNA-Arg(acg)[96338,96410]
gcctctatggtccaacggatatgacccggtctacgaaccggagatgcg
tgttcgattcgcgctaggggcac
1-27tRNA-Val(gac)[96453,96525]
gtccgtgtagctcagggtagagcgctgctgcacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-28tRNA-Arg(cct)[96699,96772]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-30tRNA-Gln(ttg)[97313,97388]
tggggtatggtggcaatctggcagtcgcccgactttgactccggaggt
gcaggttcgagtcctgctaccccatc
1-31tRNA-Arg(tct)[97392,97465]
gccctgtagctcagtggaacagagcggcgagcttctacctcggggccgg
gagttcgaatctctccaggggcac
1-32tRNA-Lys(ttt)[97533,97609]
gggccggtatcttagtctgggtcaaagaagtggaactttaatccgcgcgc
gtgggttcgaatcccaccgcccacc
1-33tRNA-Gln(ctg)[125647,125721]
tgctcgttgggtgaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[125728,125803]
tggggtgtccgttaatcaggcaaacgagcggactgttaatccgccctgc
aggttcgaatcctgccaccccagcca

>KF024734.1 Mycobacterium phage Shrimp, complete genome

1-1tRNA-Ser(gct)[31556,31639]
ggagggtgagcatctggtgatgcaggggtcctgctaaggccctacggatt
cacaccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[31736,31812]
gcctctgtagcaactggcaaagctgccgattcagagtgcgggtcatt
tccgggttcgactcccgggcagggtag
1-3tRNA-Leu(gag)[31932,32006]
gtctctgtaggcaaatcgaaaagcccatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[32007,32080]
gccgtggtaggcatctggcgagccgcgagttcaagtttcggtgtttgc

gggttcgaatccccccacgtac
1-5tRNA-SeC(tca)[68484,68580]
attctggcactggtggcgagccccaccggcggcagcttcaagctgtcgt
ggccggagaaccgaccggaacatccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[92444,92516]
cggggtgtagttcagtggaagagcgttggtttgggaccaagatgtcgca
ggttcgaatcctgtcaccccgac
1-7tRNA-Trp(cca)[92533,92608]
tggggtgaagccgatctggaaggcagcggtctcaaagcgtctcatagc
gggttcgaatcccgtaaccctgcc
1-8tRNA-Tyr(gta)[92610,92695]
gccgcacatgccaactggtgttgggagcaggtgtaaccctgtggcct
cgggacggtaggttcgattcctcagtcgggtacca
1-9tRNA-Pyl(cta)[93804,93876]
gcaccatttgctcaatggcagagcggcggcttctaaccctgagtgccg
gttcgattccggcatggtgcacc
1-10tRNA-Met(cat)[94026,94100]
agcgggtgtagagcagctaggtagctcgccgggtcataaccggaggacg
cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[94227,94298]
gcgccttggcggaatggctacgtgctcggctgcaaccgagttatcccg
gttcgactccggaggggcgctc
1-12tRNA-Glu(ctc)[94303,94377]
ggtccgttgagtagatggatatctgccaccctctcaaggtggagatca
cgggttcaagtcccgtaacgactgc
1-13tRNA-His(gtg)[94379,94452]
gtggccgtagttcagccggtagaacgctgggtgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[94614,94688]
gggcctgtagctccaattggtagagcagcatcctgcaagatgacggctg
tcggttcgaatccgacctggtccac
1-15tRNA-Phe(gaa)[94878,94950]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgggcca
ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[94956,95029]
gtccgttagctcagctggaagagcgtcgggtccacccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[95148,95220]
cgcttcgtagctcagtggtagagctgtcgctcttaagcgataggtcgt
tgggttcgaatccagccggggcac
1-18tRNA-Glu(ttc)[95225,95301]
ggtcgggtcggtctgctggtatggccagtcggattttcactccggacatt
cgcgggttcaattcccgtaacgacgc
1-19tRNA-Gly(tcc)[95382,95454]

gcgggtgtggccgaatggctcaggcaccagatttcactctggctacgca
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[95514,95588]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cggttcgagtcgacagcagcccc
1-21tRNA-Thr(tgt)[95589,95661]
gcctctgtgtccagcggcacggacatccgccttgaagcggaggacccc
cggtcgatccgggtagaggctc
1-22tRNA-Thr(ggt)[96069,96141]
gtcgggttagctcagtggtagagcgttccttggtatgggaaaggcccg
ggttcaatccccgactcagctc
1-23tRNA-Gly(gcc)[97464,97537]
gcgaaggtagctcagctggcagagcgcaccttgccaagtgagggtcgc
gggatcgaaccgttcttcgctc
1-24tRNA-Asp(gtc)[97541,97613]
ggccctgtagctcagaggaagagcgcggctcgtcgaatcggaggtcgcg
gtatcgaatccgtcagggtcgc
1-25tRNA-Met(cat)[97673,97745]
gcctcactagctcattgtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-26tRNA-Ile(gat)[97751,97825]
gcctgttagcggactggctcctccgatccaagctgataactggcgtaagc
ggtgttcgattaccgagcaggtac
1-27tRNA-Arg(acg)[97919,97991]
gcctctatggtccaacggatatgacccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-28tRNA-Val(gac)[98034,98106]
gtccgtgtagctcaggggtagagcgcctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-29tRNA-Arg(cct)[98280,98353]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-31tRNA-Gln(ttg)[98894,98969]
tggggtatggtggcaatctggcagtcgcccgacttgactccggaggt
gcaggttcgagtcctgctacccatc
1-32tRNA-Arg(tct)[98973,99048]
gccctttagctcagtggaacagagcggcgagcttctacctcgcgggccgg
gagttcgaatcctccaggggcacca
1-33tRNA-Gln(ctg)[126955,127029]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[127036,127111]
tggggtgccgttaatcaggcaaacgagcggactgttaatccgccctgc
aggttcgaatcctgccacccagcca

>KJ595575.1 Mycobacterium phage Willis, complete genome

1-1tRNA-Ser(gct)[31447,31530]

ggagggtgagcatctggtgatgcagggctcctgctaagccctacggatt
cacacccgtgagtttcgattactcctccctccgc

1-2tRNA-Leu(cag)[31627,31703]

gccctgctgagcaaaactggcaaagctccgcattcagagtcggggtcatt
tccgggttcgactcccgggcagggtac

1-3tRNA-Leu(gag)[31823,31897]

gtctctgtaggcaaatcgaaaagccgccatctgaggggtggtgcgtg
cgggttcgactcccgcagagacac

1-4tRNA-Leu(caa)[31898,31971]

gccgtggtaggccatctggcgagccgccagttcaagttcgggtttgc
gggttcgaatcccgcacggtac

1-5tRNA-SeC(tca)[68375,68471]

attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgaccggaacatccgttcaacgcgaccagggcc

1-6tRNA-Pro(tgg)[91680,91754]

cggggtgtagttcagtttgaagagcgttggtttgggaccaagttgtcg
caggttcgaatcctgtcacccgac

1-7tRNA-Trp(cca)[91769,91839]

gggtctgtgcacagggtgcccagcgttccaaagccgaaggcgggggtt
cgattccctccaggcctgcca

1-8tRNA-Pyl(cta)[93036,93108]

gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtccg
gttcgactccggcatggtgcacc

1-9tRNA-Met(cat)[93258,93332]

agcgggtgtagagcagctaggtagctcggggtcataaccggaggacg
cgtgttcgaatcacgccaccgccac

1-10tRNA-Cys(gca)[93459,93530]

gcgcctttggcggaatggctacgtgctcggtgcaacccgagttatccg
gttcgactccggaggcgctc

1-11tRNA-Glu(ctc)[93535,93609]

ggtccgttgagtagatggatatctgccaccctctcaaggtggagatca
cgggttcaagtcccgtacggactgc

1-12tRNA-His(gtg)[93611,93684]

gtggccgtagttcagccggtagaacgctgggtgtgatccagtcgtcga
gggttcgagtcctccggtcaccc

1-13tRNA-Ala(tgc)[93846,93920]

gggcctgtagtccaattggtagagcagcatcctgcaagatgacggctg
tcggttcgaatccgacctggtccac

1-14tRNA-Phe(gaa)[94110,94182]

gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgtcggcac

1-15tRNA-Val(cac)[94188,94261]

gtccgttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-16tRNA-Lys(ctt)[94380,94452]
gccttcgtagctcagtggttagagctgtcgcctctaagcgataggtcgtt
ggttcgaatccagccgggggcac
1-17tRNA-Glu(ttc)[94457,94533]
ggtcgggtcggctgtgtgtatggccagtcggattttcactccggacatt
cgcgggttcaattcccgtcccgatcgc
1-18tRNA-Gly(tcc)[94613,94685]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[94745,94819]
gtgtctgtagctcacctggcagagcgctcggcgtcgtatcccgaaggcatc
cggttcagatccggacagcagcccc
1-20tRNA-Thr(tgt)[94820,94892]
gcctctgtgtccagcggcacggacatccgccttctaagcggaggacccc
cgttcgatccgggttagaggctc
1-21tRNA-Thr(ggt)[94952,95024]
gtcgggttagctcagtggttagagcgttccttggatgggaaaggcccgg
ggttcaatccccgactcagctc
1-22tRNA-Gly(gcc)[96347,96420]
gcgaaggtagctcagctggcagagcgccacctgccaaagtgggggtcgc
gggatcgtaaccgttcttcgctc
1-23tRNA-Asp(gtc)[96424,96496]
ggccctgtagctcagaggaagagcgccggtctgtcgaatcggaggtcgcg
gtatcgaatccgtcagggtcgc
1-24tRNA-Met(cat)[96556,96628]
gcctcactagctcattggttagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-25tRNA-Ile(gat)[96634,96708]
gcctgttagcggtcgtcgtccgatccaagctgataactggcgtaagc
ggtgttcgattaccgagcaggtagc
1-26tRNA-Arg(acg)[96802,96874]
gcctctatggtccaacggatatgacccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-27tRNA-Val(gac)[96917,96989]
gtccgtgtagctcaggggtagagcgcctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-28tRNA-Arg(cct)[97163,97236]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-30tRNA-Gln(ttg)[97777,97852]
tggggtatggtggcaatctggcagtcgcccggtcttgactccggaggt
gcaggttcgagtcctgctaccccatc

1-31tRNA-Arg(tct)[97856,97929]
gccctttagctcagtgagacagcggcgagcttctacctcgcgggccgg
gagttcgaatctctccagggcac
1-32tRNA-Lys(ttt)[97997,98073]
gggccggtatcttagtctggtaaagaagtgacttttaatccgcgcgc
gtgggttcgaatcccacccggcccacc
1-33tRNA-Gln(ctg)[126111,126185]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[126192,126267]
tggggtgtccgttaatcaggcaaacgagcggactgttaatccgccctgc
aggttcgaatcctgccaccccagcca

>KM881426.1 Mycobacterium phage ZygoTaiga

1-1tRNA-Ser(gct)[31553,31636]
ggagggtgagcatctggtgatgcaggggtcctgctaaggccctacggatt
cacaccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[31733,31809]
gccctgctgagcaaacggcaaacgtgccgattcagagtgcgggtcatt
tccgggttcgactcccgggcagggtag
1-3tRNA-Leu(gag)[31929,32003]
gtctcttaggcaaatcggaagccgccatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[32004,32077]
gccgtggtaggccatctggcgagccgccgattcaagtttcggtgtttgc
gggttcgaatcccgcacggtag
1-5tRNA-SeC(tca)[69405,69501]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgaccggaacatcccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[92700,92774]
cggggtgtagttcagtttgaagagcgttggttgggaccaagatgtcg
caggttcgaatcctgtcaccgac
1-7tRNA-Trp(cca)[92789,92859]
gggtctgtgcacaggtgccccgacggtctcaaagccgaaggcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Pyl(cta)[94056,94128]
gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-9tRNA-Met(cat)[94278,94352]
agcgggtgtagagcagctaggtagctcgccgggtcataaccggaggacg
cgtgttcgaatcacgccaccgcccac
1-10tRNA-Cys(gca)[94479,94550]
gcgcctttggcggaatggctacgtgctcggtgcaacccgagttatcccg
gttcgactccgggaggcgctc
1-11tRNA-Glu(ctc)[94555,94629]

gggccgttgagtagatggatatctgccaccctctcaaggtggagatca
cgggttcaagtcctacggactgc
1-12tRNA-His(gtg)[94631,94704]
gtggccgtagttcagccggtagaacgctgggttgatcccagtcgtcga
gggttcgagtcctccggtcaccc
1-13tRNA-Ala(tgc)[94866,94940]
gggcctgtagctccaattggtagagcagcatccttgcaagatgacggctg
tcggttcgaatccgacctggtccac
1-14tRNA-Phe(gaa)[95130,95202]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgtcggcac
1-15tRNA-Val(cac)[95208,95281]
gtccgttagctcagctggaagagcgctcggtcacacccgagaggccgc
aggttcgatccctgcaatggacac
1-16tRNA-Lys(ctt)[95400,95472]
gccttcgtagctcagtggtagagctgtcgcccttaagcgataggctgtt
ggttcgaatccagccgggggcac
1-17tRNA-Glu(ttc)[95477,95553]
ggtcgggtcggctcgtggtatggccagtcggatttctactccgacatt
cgcgggttcaattcccgtcccgatcgc
1-18tRNA-Gly(tcc)[95633,95705]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacga
ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[95765,95839]
gtgctgtagctcacctggcagagcgtcggtcgtatcccgaaggcatc
cggttcgagtcggacagcagcccc
1-20tRNA-Thr(tgt)[95840,95912]
gcctctgtggtccagcggcacggacatccgccttgtaagcggaggacccc
cgttcgatccgggttagaggctc
1-21tRNA-Thr(ggt)[95972,96044]
gctgggttagctcagtggtagagcgttccttggtatgggaaagggccgg
ggttcaatccccgactcagctc
1-22tRNA-Gly(gcc)[97367,97440]
gcgaaggtagctcagctggcagagcgccaccttgccaaggtggaggtcgc
gggatcgtaacccgttcttcgctc
1-23tRNA-Asp(gtc)[97444,97516]
ggccctgtagctcagaggaagagcgccggtctgtcgaatcgaggtcgcg
gtatcgtaatccgtcagggtcgc
1-24tRNA-Met(cat)[97576,97648]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-25tRNA-Ile(gat)[97654,97728]
gcctgttagcggactggtcgtccgatccaagctgataactggcgtaagc
ggtgttcgattaccgagcaggtac

1-26tRNA-Arg(acg)[97822,97894]
gcctctatggtccaacggatatgacgccggtctacggaaccggagatgcg
tggtcgattcgcgctaggggcac

1-27tRNA-Val(gac)[97937,98009]
gtccgttagctcagggtagagcgctgctcgacacgcaggaggaccga
gggtcgaaacctcgcatggacac

1-28tRNA-Arg(cct)[98183,98256]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac

1-30tRNA-Gln(ttg)[98797,98872]
tggggtatggtggcaatctggcagtcgcccggaacttgactccggaggt
gcaggttcgagtcctgctaccccatc

1-31tRNA-Arg(tct)[98876,98949]
gccctttagctcagtgagacagcggcgagcttctacctcggggccgg
gagttcgaatcctccaggggcac

1-32tRNA-Lys(ttt)[99017,99093]
gggccggtatcttagtctggtcaaagaagtggaactttaatccgcgcgc
gtgggttcgaatccaccggccacc

1-33tRNA-Gln(ctg)[127131,127205]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
gggttcgaatcctaagcgagcagcca

1-34tRNA-Asn(gtt)[127212,127287]
tggggtgtccgttaatcaggcaaacgagcggactgttaatccgcccctgc
aggttcgaatcctgccacccagcca

>KR080196.1 Mycobacterium phage Momo, complete genome

1-1tRNA-Ser(gct)[30462,30545]
ggagggtgagcatcaggtgatgcagcgagattgctaatcccgtagcgtaa
ccaccccgtaggttcgaatcctcctccctccgc

1-2tRNA-Leu(cag)[30738,30813]
gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt
gtgagttcgaatctcaccgggagtac

1-3tRNA-Leu(gag)[30933,31007]
gtctctgtaggcaatcggaagccgcatctgagggggtggtgcgtg
cgggttcgactcccgcagagacac

1-4tRNA-Leu(caa)[31008,31081]
gccgtgtaggcatctggcgagccgagttcaagttcgggtgttgc
gggttcgaatcccgccacggtac

1-5tRNA-SeC(tca)[67487,67583]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgaccggaacatccgttcaacgcgacccagggcc

1-6tRNA-Pro(tgg)[90741,90815]
cggggtgtagttcagtttgaagagcgttggttgggaccaagatgtcg
caggttcgaatcctgtcaccacgac

1-7tRNA-Trp(cca)[90830,90900]

gggtctgtgcacaggggtccccgacgggtctccaaagccgaaggcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Tyr(gta)[90902,90988]
cccgatcatgccaaactgggtgttgggagcaggctgtaaatctgtggcct
tcgggacggtaggttcgattcctcagtcgaggacca
1-9tRNA-Pyl(cta)[92042,92115]
tgcgagatcgtgcacggcgactaggagcttctaaccctccgactcgcgg
gttcgactcccgcattcgcaccc
1-10tRNA-Met(cat)[92263,92337]
agcggtagagcagctaggtagctcgccgggtcataaccggaggacg
cgtgttcgattcacgccaccgccac
1-11tRNA-Cys(gca)[92464,92535]
gcgcctttggcggaatggctacgtgctcggtgcaaccgagttatcccg
gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[92540,92614]
ggtccgttggagtagatggacatctcgccaccctcctaaggtggagatca
cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[92616,92689]
gtggccgtagttcagccggtagaacgtgggttgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[92851,92925]
gggcctgtagctccaattggtagagcagcatccttgaagatgacggctg
tcggttcgaatccgacctggtccac
1-15tRNA-Phe(gaa)[93115,93187]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgtcgccac
1-16tRNA-Val(cac)[93193,93266]
gtccgttagctcagctggaagagcgctcgggtccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[93385,93457]
gccttcgtagctcagtggtagagctgtcgctcttaagcgataggtcgtt
ggttcgaatccagccgggggcac
1-18tRNA-Glu(ttc)[93462,93538]
ggtcgggtcggctgctggtatggccagtcggattttcactccggacatt
cgcggttcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[93618,93690]
gcgggtgtggccgaatggctcaggcaccagatttccactctggctacgca
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[93750,93824]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cggttcagtcggacagcagcccc
1-21tRNA-Thr(tgt)[93825,93897]
gcctctgtggtccagcggcacggacatccgccttgaagcggaggacccc
cgttcgatccgggtagaggctc

1-22tRNA-Thr(ggt)[94305,94377]
 gctgggtagctcagtggttagagcgttcctctggtatgggaaagggccgg
 ggttcaatccccgactcagctc
 1-23tRNA-Gly(gcc)[95700,95773]
 gcgaaggtagctcagctggcagagcgcaccttgccaaggtggaggtcgc
 gggatcgtaacccgttctcgc
 1-24tRNA-Asp(gtc)[95777,95849]
 ggccctgtagctcagaggaagagcgcggctgtcgaatcgaggtcgcg
 gtatcgtaatccgtcagggtcgc
 1-25tRNA-Met(cat)[95909,95981]
 gcctcactagctcattggttagagcgcctcgtcataacgtgcaggtacct
 ggttcgattccaggtgaggtac
 1-26tRNA-Ile(gat)[95987,96061]
 gcctgttagcggactggctcgtccgatccaagctgataactggcgtaagc
 ggtgttcgattcaccgagcaggtac
 1-27tRNA-Arg(acg)[96155,96227]
 gcctctatggtccaacggatatgacccggctctacgaaccggagatgcg
 tgttcgattcgcgctaggggcac
 1-28tRNA-Val(gac)[96270,96342]
 gtccgtgtagctcaggggtagagcgcctgctcgacacgcaggaggaccga
 ggttcgaaacctcgcatggacac
 1-29tRNA-Arg(cct)[96516,96589]
 gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
 aggttcgaatcctctcggaggcac
 1-31tRNA-Gln(ttg)[97130,97205]
 tggggtatggtggcaatctggcagtcgcccgactttgactccggaggt
 gcaggttcgagtcctgctaccccatc
 1-32tRNA-Arg(tct)[97209,97284]
 gccctttagctcagtggttagagcggcgagcttctacctcggggccgg
 gaggtcgaatctctccagggcacca
 1-33tRNA-Gln(ctg)[125188,125262]
 tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
 ggttcgaatcctaagcgagcagcca
 1-34tRNA-Asn(gtt)[125269,125344]
 tgggggtgccgttaatcaggcaaacgagcggactgttaatccgccctgc
 aggttcgaatcctgccacccagcca

>KX349298.1 Cyanophage S-RIM14 isolate LIS_02_1110, complete genome

1-1tRNA-Arg(tct)[164005,164077]
 gggtcagtagctcagtggttagagcatcgcacttctaatacggttggtcgg
 gggttcaaatccctcctgacccg

>KX349299.1 Cyanophage S-RIM14 isolate LIS_22_0610, complete genome

1-1tRNA-Arg(tct)[164005,164077]
 gggtcagtagctcagtggttagagcatcgcacttctaatacggttggtcgg
 gggttcaaatccctcctgacccg

>KX349300.1 Cyanophage S-RIM14 isolate Np_11_1211, complete genome
1-tRNA-Arg(tct)[164012,164084]
gggtcagtagctcagtgatagagcatcgcacttctaatacggttggtcgg
gggttcaaatccctcctgacccg

>KX349301.1 Cyanophage S-RIM14 isolate Np_45_0711, complete genome
1-tRNA-Arg(tct)[164005,164077]
gggtcagtagctcagtgatagagcatcgcacttctaatacggttggtcgg
gggttcaaatccctcctgacccg

>KX349302.1 Cyanophage S-RIM14 isolate RW_03_0110, complete genome
1-tRNA-Arg(tct)[164005,164077]
gggtcagtagctcagtgatagagcatcgcacttctaatacggttggtcgg
gggttcaaatccctcctgacccg

>KX349303.1 Cyanophage S-RIM14 isolate Sn_11_0110, complete genome
1-tRNA-Arg(tct)[165497,165569]
gggtcagtagctcagtgatagagcatcgcacttctaatacggttggtcgg
gggttcaaatccctcctgacccg

>KX349304.1 Cyanophage S-RIM14 isolate Sn_18_0910, complete genome
1-tRNA-Arg(tct)[164004,164076]
gggtcagtagctcagtgatagagcatcgcacttctaatacggttggtcgg
gggttcaaatccctcctgacccg

>KX349305.1 Cyanophage S-RIM14 isolate Sn_23_0910, complete genome
1-tRNA-Arg(tct)[164006,164078]
gggtcagtagctcagtgatagagcatcgcacttctaatacggttggtcgg
gggttcaaatccctcctgacccg

>KX349306.1 Cyanophage S-RIM14 isolate W1_23_0910, complete genome
1-tRNA-Arg(tct)[164558,164630]
gggtcagtagctcagtgatagagcatcgcacttctaatacggttggtcgg
gggttcaaatccctcctgacccg

>HM137666.1 Enterobacteria phage T4T, complete genome
1-tRNA-Arg(tct)c[71151,71225]
gtcccgctggtgtaatggatagcatagccttctaagttgcggtcct
ggttcgatcccaggcgaggatacca
1-2tRNA-Met(cat)c[71938,72011]
ggcctgtagctcaatggttagcagcagtcacctcataagggaaggta
ccagttcaaatctggtctgggtca
1-3tRNA-Thr(tgt)c[72013,72088]
gctgatttagctcagtaggtagagcacctcacttgtaatgaggatgtcgg
cggttcgattccgtcaatcagcacca
1-4tRNA-Ser(tga)c[72095,72183]
tggaggcgtggcagagtgggttaatgcaccggcttgaaaaccggcagtc
gtccggcgactcataggttcaaatcctatcgctccgt
1-5tRNA-Pro(tgg)c[72184,72258]
ctccgtgtagctcagtttgtagagcgctgattgggatcaggaggtcc
aaggttcaaatccttgatggagac

1-6tRNA-Gly(tcc)c[72269,72342]
gcggatatcgataatggtattacctcagactccaatctgatgatga
gttcgattctcattatccgctcca
1-7tRNA-Leu(taa)c[72348,72434]
gcgagaatggtaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttgggttcgagtccttctcgacca
1-8tRNA-Gln(ttg)c[72435,72508]
tgggaattagccaagttggaagcatagcactttgactgctagatgcaa
aggttcgagtcctttattcccagc

>KJ477684.1 Enterobacteria phage T4 strain wild, complete genome

1-1tRNA-Arg(tct)c[71153,71227]
gtcccgtggtgtaatggatagcatagccttctaagttgcggtcct
ggttcgatcccaggcgaggatacca
1-2tRNA-Met(cat)c[71940,72013]
ggcctgtagctcaatggttagcagcagtcctcctaagggaaggtta
ccagttcaaatctggtctgggtca
1-3tRNA-Thr(tgt)c[72015,72090]
gctgatttagctcagtagtagagcacctcactgtaatgaggatgtcgg
cggttcgattccgtcaatcagacca
1-4tRNA-Ser(tga)c[72097,72185]
tggaggcgtggcagagtggttaatgcaccggtctgaaaaccggcagtc
gtccggcgactcataggttcaaatcctatcgctccgt
1-5tRNA-Pro(tgg)c[72186,72260]
ctccgttagctcagtttggtagcgcctgattgggatcaggaggctcc
aaggttcaaatccttgatggagac
1-6tRNA-Gly(tcc)c[72271,72344]
gcggatatcgataatggtattacctcagactccaatctgatgatga
gttcgattctcattatccgctcca
1-7tRNA-Leu(taa)c[72350,72436]
gcgagaatggtaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttgggttcgagtccttctcgacca
1-8tRNA-Gln(ttg)c[72437,72510]
tgggaattagccaagttggaagcatagcactttgactgctagatgcaa
aggttcgagtcctttattcccagc

>KJ477685.1 Enterobacteria phage T4 strain 147, complete genome

1-1tRNA-Arg(tct)c[69046,69120]
gtcccgtggtgtaatggatagcatagccttctaagttgcggtcct
ggttcgatcccaggcgaggatacca
1-2tRNA-Met(cat)c[69833,69906]
ggcctgtagctcaatggttagcagcagtcctcctaagggaaggtta
ccagttcaaatctggtctgggtca
1-3tRNA-Thr(tgt)c[69908,69983]
gctgatttagctcagtagtagagcacctcactgtaatgaggatgtcgg
cggttcgattccgtcaatcagacca

1-4tRNA-Ser(tga)c[69990,70078]
tggaggcgtggcagagtgggttaatgcaccggtctgaaaaccggcagtc
gctccggcgactcataggtcaaactctatcgctccgt
1-5tRNA-Pro(tgg)c[70079,70153]
ctccgtgtagctcagtttgtagagcgctgattgggatcaggaggtcc
aaggttcaaactctgtatggagac
1-6tRNA-Gly(tcc)c[70164,70237]
gcggatatcgataatggattacctcagactccaatctgatgatga
gttcgattctcattatccgtcca
1-7tRNA-Leu(taa)c[70243,70329]
gcgagaatggtaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgtgggttcgagtccttctcgacca
1-8tRNA-Gln(ttg)c[70330,70403]
tgggaattagccaagttggaaggcatagcacttgactgctagatgcaa
aggttcgagtcctttattcccagc

>KJ477686.1 Enterobacteria phage T4 strain GT7, complete genome

1-1tRNA-Arg(tct)c[71151,71225]
gtcccgtggtgtaatggatagcatacgatccttctaagtttgcggtcct
ggttcgatcccaggcgggatacca
1-2tRNA-Met(cat)c[71938,72011]
ggccctgtagctcaatggtagcagcagtcctcataagggaaggta
ccagttcaaactcgtctgggtca
1-3tRNA-Thr(tgt)c[72013,72088]
gctgatttagctcagtagtagacacctcacttgtaatgaggatgtcgg
cggttcgattccgtcaatcagacca
1-4tRNA-Ser(tga)c[72095,72183]
tggaggcgtggcagagtgggttaatgcaccggtctgaaaaccggcagtc
gctccggcgactcataggtcaaactctatcgctccgt
1-5tRNA-Pro(tgg)c[72184,72258]
ctccgtgtagctcagtttgtagagcgctgattgggatcaggaggtcc
aaggttcaaactctgtatggagac
1-6tRNA-Gly(tcc)c[72269,72342]
gcggatatcgataatggattacctcagactccaatctgatgatga
gttcgattctcattatccgtcca
1-7tRNA-Leu(taa)c[72348,72434]
gcgagaatggtaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgtgggttcgagtccttctcgacca
1-8tRNA-Gln(ttg)c[72435,72508]
tgggaattagccaagttggaaggcatagcacttgactgctagatgcaa
aggttcgagtcctttattcccagc

>KM607002.1 Enterobacteria phage RB55, complete genome

1-1tRNA-Arg(tct)c[71116,71190]
gtcccgtggtgtaatggatagcatacgatccttctaagtttgcggtcct
ggttcgatcccaggcgggatacca

1-2tRNA-Met(cat)c[71903,71976]
ggccctgtagctcaatggtagcagcagtcacctcataagggaaaggta
ccagttcaaatctggtctgggtca
1-3tRNA-Thr(tgt)c[71978,72053]
gctgatttagctcagtaggtagagcacctcacttgtaatgaggatgtcgg
cggttcgattccgtcaatcagcacca
1-4tRNA-Ser(tga)c[72060,72148]
tggaggcgtggcagagtgggttaatgcaccggtcttgaaaaccggcagtc
gctccggcgactcataggtcaaatcctatcgctccgt
1-5tRNA-Pro(tgg)c[72149,72223]
ctccgttagctcagtttggtagagcgcctgattgggatcaggaggtcc
aaggtcaaatccttgatggagac
1-6tRNA-Gly(tcc)c[72234,72307]
gcggatatcgataatggtattacctcagactccaatctgatgatgtga
gttcgattctcattatccgtcca
1-7tRNA-Leu(taa)c[72313,72399]
gcgagaatggtcaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttggtggttcgagtccttctcgacca
1-8tRNA-Gln(ttg)c[72400,72473]
tgggaattagccaagttgtaaggcatagcacttgactgctagatgcaa
aggttcgagtcctttatcccagc

>KM607003.1 Enterobacteria phage RB59, complete genome

1-1tRNA-Arg(tct)c[71129,71203]
gtcccgtggtgtaatggatagcatagccttctaagtttgcggtcct
ggttcgatcccaggcgggatacca
1-2tRNA-Met(cat)c[71916,71989]
ggccctgtagctcaatggtagcagcagtcacctcataagggaaaggta
ccagttcaaatctggtctgggtca
1-3tRNA-Thr(tgt)c[71991,72066]
gctgatttagctcagtaggtagagcacctcacttgtaatgaggatgtcgg
cggttcgattccgtcaatcagcacca
1-4tRNA-Ser(tga)c[72073,72161]
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gctccggcgactcataggtcaaatcctatcgctccgt
1-5tRNA-Pro(tgg)c[72162,72236]
ctccgttagctcagtttggtagagcgcctgattgggatcaggaggtcc
aaggtcaaatccttgatggagac
1-6tRNA-Gly(tcc)c[72247,72320]
gcggatatcgataatggtattacctcagactccaatctgatgatgtga
gttcgattctcattatccgtcca
1-7tRNA-Leu(taa)c[72326,72412]
gcgagaatggtcaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttggtggttcgagtccttctcgacca
1-8tRNA-Gln(ttg)c[72413,72486]

tgggaattagccaagttggttaaggcatagcactttgactgctagatgcaa
 aggttcgagtcctttattcccagc
 >MF360957.1 Bacillus virus PBS1, complete genome
 1-tRNA-Asn(gtt)[119223,119298]
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 gtaggttcgaatcctactatcccagt
 >KT321476.1 Mycobacterium phage Zeenon, complete genome
 1-tRNA-Ser(gct)[31539,31622]
 ggaggggtgagcatctggtgatgcaggggtcctgctaaggccctacggatt
 cacaccctgagtttcgattactcctccctccgc
 1-2tRNA-Leu(cag)[31719,31795]
 gccctgctgagcaactggcaaagctgccgcattcagagtgcgggtcatt
 tccgggttcgactcccgggcagggtac
 1-3tRNA-Leu(gag)[31915,31989]
 gtctctgtaggcaaatcgaaaagccgcatcttgaggggtggtgcgtg
 cgggttcgactcccgcagagacac
 1-4tRNA-Leu(caa)[31990,32063]
 gccgtggtaggccaatctggcgagccgagttcaagtttcggtgtttgc
 gggttcgaatcccgcacgggtac
 1-5tRNA-SeC(tca)[68245,68341]
 attctggcactggtgggcgagcccaccggcgagcttcaagctgtcgt
 ggccggagaaccgaccggaacatcccgttcaacgcgacccagggcc
 1-6tRNA-Pro(tgg)[91594,91668]
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 caggttcgaatcctgtcaccccgac
 1-7tRNA-Trp(cca)[91683,91753]
 gggctctgtgcacagggtgcccagcgtctccaaagccgaaggcgggggtt
 cgattccctccaggcctgcca
 1-8tRNA-Pyl(cta)[92890,92963]
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 gttcgactcccgcactctcgaccc
 1-9tRNA-Met(cat)[93111,93185]
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 cgtgttcgattcacgccaccggcac
 1-10tRNA-Cys(gca)[93400,93471]
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 gttcgactccgggaggcgctc
 1-11tRNA-Glu(ctc)[93539,93610]
 gctcccatgggtagtggttaaccctcctggttctcagccaggcgtcccga
 gttcgatcctcgtgggagtg
 1-12tRNA-His(gtg)[93612,93685]
 gtggccgtagttcagccggtagaacgtgggttgtgatccagtcgtcga
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 1-13tRNA-Ala(tgc)[93850,93923]

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aggttcaagtcctgttaggtccac
1-14tRNA-Phe(gaa)[94113,94185]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtggtccga
ggttcgagtcctcgtgtcggcac
1-15tRNA-Val(cac)[94191,94264]
gtccgttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-16tRNA-Lys(ctt)[94383,94455]
gccttcgtagctcagtggtagagctgtcgcctttaagcgataggtcgtt
ggttcaaatccagccgggggcac
1-17tRNA-Glu(ttc)[94459,94534]
gttcgggtggtctgttggcaggccggtcgggttttcaccccggtcatc
cggggttcgattcccgctcccactgc
1-18tRNA-Gly(tcc)[94664,94736]
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1-19tRNA-Thr(cgt)[94796,94870]
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cggttcgagtcggacagcagcccc
1-20tRNA-Thr(tgt)[94871,94943]
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1-21tRNA-Thr(ggt)[95351,95423]
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1-22tRNA-Gly(gcc)[96746,96819]
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gggatcgtaacccgttcttcgctc
1-23tRNA-Asp(gtc)[96823,96895]
ggccctgtagctcagaggaagagcgccggtctgtcgaatcggaggtcgcg
gtatcgtaatccgtcagggtcgc
1-24tRNA-Met(cat)[96955,97027]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-25tRNA-Ile(gat)[97033,97107]
gcctgttagcggactggctcgtccgatccaagctgataactggcgtaagc
ggtgttcgattcaccgagcaggtac
1-26tRNA-Arg(acg)[97201,97273]
gcctctatggtccaacggatatgacgccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-27tRNA-Val(gac)[97316,97388]
gtccgttagctcaggggtagagcgctcgtcgcacgcaggaggaccga
ggttcgaaacctgcatggacac

1-28tRNA-Arg(cct)[97562,97635]
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 aggttcgaatcctctcggaggcac
 1-30tRNA-Gln(ttg)[98176,98251]
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 gcaggttcgagtcctgctaccccatc
 1-31tRNA-Arg(tct)[98255,98328]
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 gagttcgaatctctccaggggcac
 1-32tRNA-Lys(ttt)[98396,98472]
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 tggggttcgaatcccacccggcccacc
 1-33tRNA-Gln(ctg)[126474,126548]
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 ggttcgaatcctaagcgagcagcca
 1-34tRNA-Asn(gtt)[126555,126630]
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 aggttcgaatcctgccaccccagcca
 >KU726251.1 Enterobacteria phage SEG1, complete genome
 1-tRNA-Trp(cca)[1573,1648]
 gggggtatggcgcaattggtagcgaccggtctccaaaaccgaaggttcg
 aggttcgaaacctcgtgcccccgcca
 >KM209228.1 Dickeya phage phiD3, complete genome
 1-tRNA-Met(cat)[133174,133250]
 gatggtgtagttcagttggttagaacgtgagcactcataatcgctttgtca
 ctggttcaagtcctgccgccatcgcca
 >JN797798.1 Bacillus phage BCU4, complete genome
 1-tRNA-Met(cat)c[148023,148095]
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 aggttcaactcctactagcccta
 1-2tRNA-Leu(tag)c[148239,148313]
 tgccgaagtaatccaatggcagagatagcggtttagaaacctacagtg
 tgggttcgagtcacaccttcggtat
 1-3tRNA-Leu(taa)c[148318,148405]
 ggcggagtggtggaattggtagacatatggcacttaaaatgctatgtccg
 tacgggcgtggtgggttcgagtcctccctccgctacca
 1-4tRNA-Ile(gat)c[148421,148497]
 gctagggtagctcagtcaggtagagcagagcttataaggctttggtcg
 taggttcgaatcctaccctagtagcca
 1-5tRNA-Tyr(gta)c[148499,148585]
 gggcgagtatgcaaattggtgaagcaagcgggtctgaaaaccgtgacgta
 agatacattgcaggttcgaatcctgcctttccacca
 1-6tRNA-Phe(gaa)c[148724,148799]
 ggacggatagctcagttggtagagcagaggctgaaaatcctcgtgtcgt

aggttcgattcctactccgtccacca
 1-7tRNA-Pro(tgg)c[148880,148955]
 tgtggatagctcagattggtagagcgcttgcttgggagcaagaagtc
 gtaggtcaagtcctgctatccgcat
 1-8tRNA-Gln(ttg)c[149269,149341]
 ttccggagtagccaagtggtaaggcaatagactttgactctatgatcggc
 gggtcgagaccatcctccgaagt
 1-9tRNA-Ser(tga)c[149419,149510]
 ggaaggatactcaagtgataaaagagggcggtcttgaaaaccgctaggc
 gtgtaaaagcgtgcgtgggtcgaatccactccttcgcca
 1-10tRNA-Arg(tct)c[149515,149591]
 tatcccattagccaagttggatcaaggcaacgggcttctatcccgtta
 cgtgggttcgagtcctacatgggatgt
 1-11tRNA-Ile(tat)c[149671,149745]
 gcccttttagccaagcgggtcaaggcagtgaggattatgtcctgcgaatcg
 gaagttcgaatctccaaggggagc
 1-12tRNA-Glu(ttc)c[149749,149822]
 ggggtattggtgaagtggtaaacacatccgactttctatcggagatacg
 agggttcgaatcccttataccctt
 1-13tRNA-Thr(tgt)c[149952,150025]
 gccttctagctcagttgatagagcgattgacttgaatcaataggtcga
 gggttcgaatccttcagtcggcac
 1-14tRNA-Asp(gtc)c[150145,150218]
 tggggatatagtgtagcgggtgaacacacttgactgtctatcaagtagcac
 ggggttcgagtcgccgttatcctcgt
 1-16tRNA-Gly(tcc)c[150870,150942]
 ggggcattagtatatcggttcattattcctggctccaaccaggggaggt
 cgggtcgaactccgacatgccct
 1-17tRNA-Ser(gct)c[150948,151038]
 ggaagggtgtcagagcgggttattgtgcctgttgctaaataggtgtacg
 tccttaacgtaccacaggttcgaatcctgtaccttcgcca
 1-18tRNA-Asn(gtt)c[151553,151628]
 gtgcctgtagctcagtcggtagagcaaacctgttaaggtgaggtcgt
 aggttcgagccctaccaggtacgcca
 1-19tRNA-Cys(gca)c[151648,151721]
 gaaggtgtaccgaagcggcctaacggctcaggttgcaaccctagttttcg
 tgggttcgaatcccaccactttct

>KT365398.1 Mycobacterium phage DTDevon, complete genome

1-1tRNA-Ser(gct)[31626,31709]
 ggagggtgagcatcaggtgatgcagcgagattgctaaccggtacggtaa
 ccaccccgtaggttcgaatcctcctccctccgc
 1-2tRNA-Leu(cag)[31902,31977]
 gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt
 gtgagttcgaatctcaccgggagtac

1-3tRNA-Leu(gag)[32097,32171]
gtctctgtaggcaaatcgaaaagccgccatctgaggggtggtgcgtg
cgggttcgactcccgccagagacac
1-4tRNA-Leu(caa)[32172,32245]
gccgtgtaggccatctggcgagccgccgagttcaagtttcggtgttgc
gggttcgaatcccgcacggtac
1-5tRNA-SeC(tca)[68548,68644]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaatcgaccggaaacatcccggtcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[93205,93277]
cggggtgtagttcagtggaagagcgcttggtttgggaccaagatgtcgca
ggttcgaatcctgtcaccccgac
1-7tRNA-Trp(cca)[93294,93369]
tgggtgaagccgatctggaaggcagcggtctcaaagccgtctcatagc
gggttcgaatcccgtaacccctgcc
1-8tRNA-Tyr(gta)[93371,93457]
gccgcacatcccaactggtgttgggagcaggtgtaacctgtggcct
tcgggacggtgaggttcgattcctcagtcgggtacca
1-9tRNA-Pyl(cta)[94566,94638]
gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[94788,94862]
agcgggtgtagagcagctaggtagctcgccgggtcataaccggaggacg
cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[94989,95060]
gcgccttggcggaatggctacgtgctcggtgcaacccgagttatccc
gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[95065,95139]
ggtccgttgagtagatggatatctgccaccctctcaagtgagatca
cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[95141,95214]
gtggccgtagttcagccggtagaacgtgggttgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[95376,95449]
gggcctatagctcatctggtagagcgctgccttgaagcaggaggcggc
aggttcaagtcctgttagtccac
1-15tRNA-Phe(gaa)[95639,95711]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[95717,95790]
gtccgttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[95909,95981]
gccttcgtagctcagtggtagagctgtgcctcttaagcgataggtcgtt

ggttcgaatccagccggggcac
1-18tRNA-Glu(ttc)[95986,96062]
ggtcgggtcggctcgtcggatggccagtcggatttcactccggacatt
cgcggggtcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[96142,96214]
gcggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[96274,96348]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cggttcgagtcggacagcagcccc
1-21tRNA-Thr(tgt)[96349,96421]
gcctctgtgtccagcggcacggacatccgccttgaagcggaggacccc
cgttcgatccgggtagaggctc
1-22tRNA-Thr(ggt)[96829,96901]
gctgggttagctcagtggtagagcgttcctctggatgggaaaggccgg
ggttcaatccccgattcagctc
1-23tRNA-Gly(gcc)[98224,98297]
gcgaaggtagctcagctggtagagcggcaccttccaaggtggaggtcgc
gggatcgtaacccgttcttcgctc
1-24tRNA-Asp(gtc)[98301,98373]
ggccctgtagctcagaggaagagcgcggctcgtcgaatcggaggtcgcg
gtatcgtaatccgtcagggtcgc
1-25tRNA-Met(cat)[98433,98505]
gcctcactagctcattggtagagcgcctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-26tRNA-Ile(gat)[98511,98585]
gcctgttagcggactggctcggatccaagctgataactggcgtgaagc
ggtgttcgattaccgagcagggtac
1-27tRNA-Arg(acg)[98679,98751]
gcctctatggtccaacggatatgacgccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-28tRNA-Val(gac)[98794,98866]
gtccgtgtagctcaggggtagagcgcctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-29tRNA-Arg(cct)[99040,99113]
gcctctgtagctcaacggacagagcaacgcggctctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-31tRNA-Gln(ttg)[99654,99729]
tggggtatggtggcaatctggcagtcgccggactttgactccggaggt
gcaggttcgagtcctgctaccccatc
1-32tRNA-Arg(tct)[99733,99808]
gccctgttagctcagtggaagagcggcgagcttctacctcgcgggccgg
gagttcgaatctctccagggcacca
1-33tRNA-Gln(ctg)[127929,128003]

tgctcgttggtgtaactggcaacactacggactctgactccgtcatttta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[128010,128085]
tgggggtgccgttaatcaggcaaacgagcggactgttaatccgccctgc
aggttcgaatcctgccaccccagcca

>KJ019158.1 *Synechococcus* phage ACG-2014a isolate Syn7803C33, complete genome

1-1tRNA-Val(tac)[13064,13135]
gggcgaataactcagcggtagagtgcctcctttacacggagattgtcggg
ggttcgatcccctcttcgcca
1-2tRNA-Leu(taa)[18054,18140]
tgggagtggtggcgaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagtcccccttctcccat
1-3tRNA-Thr(tgt)[18764,18836]
gcctccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc
1-4tRNA-Asn(gtt)[18841,18913]
tcctctatagctcagttggtagagcaggtgactgttaatcacctgtccc
tgggtcagtcagggtggaggag
1-5tRNA-Arg(tct)[154574,154649]
tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
acaggttcgagtcctgtctgaccgt

>KF302034.1 UNVERIFIED: *Pseudoalteromonas* phage HM1, complete genome

1-1tRNA-Lys(ttt)c[71990,72059]
gccttcgtagctaactggtaagcgacttacttttaatgaggatatgttg
ttcaattccaaccgaaggca
1-2tRNA-Arg(tct)c[72061,72137]
gcaagagtagaacaattggatagttcatctcccttctaaggagacggttg
taagttcgaatcttacctcttgcca

>KR233165.1 *Escherichia* phage PEC04, complete genome

1-1tRNA-Ser(tga)[6,95]
ggaggcgtggcagagtggtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcgaatcctatcgctccgcca
1-2tRNA-Thr(tgt)[101,176]
gctgatttagctcagtaggtagagcaactcacttgtaatgagaaggtcgg
cgggtcgattccgtcaatcagcacca
1-3tRNA-Met(cat)[178,252]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggttcaattcaccagggccacca
1-4tRNA-Tyr(gta)[262,348]
ggggagttattccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-5tRNA-Asn(gtt)[353,427]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattggtata
ggttcgaatcctatcacgtccgcca

1-6tRNA-Arg(tct)[432,507]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
aggttcgatccctactgcctcgacca
1-7tRNA-Gln(ttg)[166657,166730]
tgggaattagccaagttggaaggcactggattttgattccaggatgcaa
aggttcaagtcctttattcccagc
1-8tRNA-Leu(taa)[166731,166817]
gcgagaatggtaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgggttcgagtccttctcgacca
1-9tRNA-Gly(tcc)[166823,166896]
gcggatatcgataatggcattacctcagacttccaatctgatgatgga
gttcgatttcattatccgctcca

>KJ010548.1 Bacillus phage Bp8p-T, complete genome

1-1tRNA-Met(cat)c[106844,106915]
gggtcttttagcttaaaggtaaagcaatcagctcataactgataggatagg
agttcgagtccttaggaccca
1-2tRNA-Tyr(gta)c[109354,109437]
gggatagcgctaactggagagttaggcgagactgaaatctcgtgtcg
gatcactgagtggttcgaatcccacctgtccca
1-3tRNA-His(gtg)c[109551,109621]
gagaatgtagcttaacggtaaagcgctgggacgtgactccagttatccaa
gttcgagtccttgatttctca
1-4tRNA-Gly(tcc)c[109632,109705]
gtggtcttagtttaacggtagaattgctggctccaaccagcgggtaagg
gttcgactcccttagaccatacca
1-5tRNA-Met(cat)c[110834,110907]
tacgatgctgaggggtcggtaacccgacgaggtctcataagcctgttttag
caagttcaactcttgcccttagcaa
1-6tRNA-Phe(gaa)c[110981,111055]
tggactggtagctcagtcggtagagcagggggctgaaaatccctgtgtcg
gaggttcgaatccttctcagtcctat
1-7tRNA-Asn(gtt)c[111435,111508]
ttgtcgataactcaatggtagagtgtgactgttaatcaagaagttgt
aggttcgagtcctactacgacagt

>KJ094029.1 Listeria phage LP-064, complete genome

1-1tRNA-Met(cat)c[35285,35358]
ttgtcccgtagctagaaggtcgagcaaggagctcataactcctcggtttg
ggttcgattccaacggggcaatc
1-2tRNA-Pro(tgg)c[36251,36325]
caggggtgtagctcagtttggttagagtacccgcttggagacgggaagtc
gtaggttcgagtcctaccacctga
1-3tRNA-Arg(tct)c[37443,37513]
gtccttatggtgtagtgatgcacaagggatttactcccttagcgcgg
gttcgaatcctgctgaggact

1-4tRNA-Gly(tcc)c[37771,37841]
 gcgggtatagtataagggtagtagtaccacaggtttccaacatgtagtgggg
 gttcgaatccccctaccgct
 1-5tRNA-Asn(gtt)c[37910,37983]
 gtgtccttaactcagaggtcagagtgccgtcctgttaagtcggaagtcgc
 tggttcaaatccagcaggatacgc
 1-6tRNA-Ser(tga)c[38605,38696]
 ggaaggttggtagagcttggtataacgctagtcttgaaaactagttgcc
 ctggaatacagggtacaagggttcaatcccttaccttct
 1-7tRNA-Phe(gaa)c[38709,38780]
 gtagtcctagctgagatggattagcgttgcctgaaaagcaagagaggca
 ggttcgatacctcggactcca
 1-8tRNA-Lys(ttt)c[38786,38857]
 ggagttatgggtgaatggctatcactcgggtttttaccccggtattcta
 ggttcgaatcctagtggtcca
 1-9tRNA-Trp(cca)c[38982,39055]
 taggggtatagtttatctggtaaaattggtttccaactccaatgaggt
 gggttcaagtcctactatccctgt
 1-10tRNA-Gln(ttg)c[39057,39129]
 tggctctgtagccaagcggtaaggcaacggattttgattccgtgatacgtt
 ggttcgaatccaactagaccagc
 1-11tRNA-Thr(tgt)c[39148,39219]
 gcttgatatgttcaattggtagaacagtggtttgtaagcctcagacgtg
 ggttcaagtcctactacaagca
 1-12tRNA-Tyr(gta)c[39302,39383]
 gtgccattcgcatagaggcaattgcaggggactgtaactcccctcccttc
 ggggtccaaggttcgagtccttgatggcgca
 1-13tRNA-Leu(tag)c[39744,39828]
 tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
 taaggatatgtgggttcgaatcccactctcggat
 1-14tRNA-Asp(gtc)c[40294,40366]
 gtgcgtatgatataatggctattatactcggctgtctatcgagaaatagg
 ggttcgattccccttacgtgcgc
 1-15tRNA-Ile(gat)c[40470,40542]
 gccagcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
 ggttcaattccaagtgttggtac
 1-16tRNA-Ser(gct)c[40719,40805]
 ggagagttgtcagagaggcttaatgatacgggttgctaactcgttgact
 agtaatagtagcaagggttcgaatcccttactctct
 1-17tRNA-Cys(gca)c[40884,40954]
 gcgggtataaccaactggaaggtagtagactgcaaatctacgtatatgg
 gttcaattcccattacccgct
 >KJ094031.2 Listeria phage LP-124, complete genome
 1-1tRNA-Met(cat)c[129836,129909]

ttgtcccgtagctagaaggtcgagcaaggagctcataactcctcggttg
ggttcgattcccaacggggaatc
1-2tRNA-Pro(tgg)c[130802,130876]
cagggtgtagctcagttggttagagtacccgcttggagacgggaagtc
gtaggttcgagtcctaccacctga
1-3tRNA-Arg(tct)c[131994,132064]
gtccttatggtgtagtggaatgcacaagggaattctactcccttagcgcgg
gttcgaatcctgctgaggact
1-4tRNA-Gly(tcc)c[132322,132392]
gcgggtatagtagtataagggtagtagtaccgaaggttccaacatgtagtggg
gttcgaatccccctaccgct
1-5tRNA-Asn(gtt)c[132461,132534]
gtgtccttaactcagaggtcagagtgccgtcctgtaagtcggaagtcgc
tggttcaatccagcaggatacgc
1-6tRNA-Ser(tga)c[133156,133247]
ggaaggttggttagagcttggaatacgtagcttgaaaactagttgcc
cttgaatacagggtacaagggttcaaatccctaccttct
1-7tRNA-Phe(gaa)c[133260,133331]
gtagtcctagctgagatggattagcgttgcttgaaaagcaagagaggca
ggttcgatacctcggactcca
1-8tRNA-Lys(ttt)c[133337,133408]
ggagttatggtgaaatggctatcactgcgggttttaccctgtattcta
ggttcgaatcctagtggtcca
1-9tRNA-Trp(cca)c[133533,133606]
taggggtatagtttatctggtaaaatattggttccaactccaatgaggt
gggttcaagtcctactatccctgt
1-10tRNA-Gln(ttg)c[133608,133680]
tggtctgtagccaagcggtgaaggcaacggatttgattccgtgatacgtt
ggttcgaatccaactagaccagc
1-11tRNA-Thr(tgt)c[133699,133770]
gcttgtagtcaattggtagaacagtggtttgtaagcctcagacgtg
ggttcaagtcctactacaagca
1-12tRNA-Tyr(gta)c[133853,133934]
gtgccattcgcatagaggcaattgcaggggactgtaactccccctcccttc
ggggttccaaggttcgagtccttgatggcgca
1-13tRNA-Leu(tag)c[134295,134379]
tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
taaggatatgtgggttcgaatccactctcggtat
1-14tRNA-Asp(gtc)c[134845,134917]
gtgcgtatgatataatggctattatactcggctgtctatcgagaaatagg
ggttcgattccccttacgtgcgc
1-15tRNA-Ile(gat)c[135021,135093]
gccagcatagcttagtaggcaagcaaccgaccgataatcggtagtcctt
ggttcaattccaagtggtgtac

1-16tRNA-Ser(gct)c[135270,135356]
ggagagttgtcagagaggcttaatgatacgggttgctaactcgttgact
agtaatagtaggaagggttcgaatcccttactctcct
1-17tRNA-Cys(gca)c[135435,135505]
gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
gttcaattcccattacccgct

>KU737346.1 Bacillus phage Vinny, complete genome

1-1tRNA-Asn(gtt)[32383,32457]
tgtgctttagctcagtcggtagagctggtggctgtaaccactgtgtcg
taggttcgagccctacctagcacgt
1-2tRNA-Gln(ttg)[32463,32535]
tgctcttagccaagcggtaaggcacgggactttgactctcggacgcgct
agttcgaatctagcagaggcatc
1-3tRNA-Trp(cca)[32704,32777]
gggagtttagtttagtggtaaaacctcggtctccaaaaccgaagtcatat
gttcgattcgtagctcctgccca
1-4tRNA-Ser(tga)[32779,32866]
ggagggttggcagagtggtattatgcagcggcttgaaaaccgccgaggg
taaaacctccgtgagttcaaatctcacacctctcca
1-5tRNA-Leu(tag)[33586,33663]
tgccgaagtaatccaatcaggtagatagcggtttagaaaaccgtccag
tgtgggttcgacccctccttcggtatc
1-6tRNA-Tyr(gta)[33670,33753]
tggcagaatagtaagcggcaacgacagtgactgtaaatcacccctcat
tcgagttcgtaggttcgagtcctctctgctat
1-7tRNA-Ser(gct)[34666,34752]
ggaggggtactcaagcggcgaagagggggacttgctaagtcctagtagcc
ttaacaggtagcgagggttcgaatccctccccctcct

>KJ019089.1 Synechococcus phage ACG-2014j isolate Syn7803US23, complete genome

1-1tRNA-Met(cat)[17105,17179]
tgcttccttagcaatctggtgaatgcagcaaaactcataattgcctaagg
agagttcgatcctctcaggaagcat
1-2tRNA-Leu(taa)[17181,17267]
tgcgagtagtggcggaatcggtagacgcaccagacttaaaatctgttgagc
attatgctctgggagttcaagtccttactcgcgcat
1-3tRNA-Thr(tgt)[18085,18158]
gccaaactagctcagctggtagagcagggtttgtaaagctcaggtcgc
aggttcaagtcctgtgttggtc
1-4tRNA-Asn(gtt)[18162,18235]
ttctcttagctcagcggtagagcgggtgactgtaaatcaattgtccc
tggttcgatcccaggaaggaggagt
1-5tRNA-Arg(tct)[158075,158150]
gtctcagtagctcagatggatagagcaattcacttctaataatgggtcg
ggggttcgagtcctcctgagacgcc

1-6tRNA-Leu(tag)[158153,158235]
gtcggatggcggaattggtagacgcgccaggttaggtctggtgtctt
atgacgtggaggttcaagtcctcttaccgacac
1-7tRNA-Val(tac)[158238,158309]
gctcgaatagctcagaggtagacacctcctttacacggagattgtcggg
ggttcgatcccctcttcgagca
1-8tRNA-Gly(tcc)[160795,160867]
gcgggtgtagctcagatggtagagcgtcagtttccaaactgaatgtcgt
cgggtcaagtcgatctcccgt

>KP869109.1 Escherichia coli O157 typing phage 11, complete genome

1-1tRNA-Pro(tgg)[24016,24092]
ctctgttagctcagcttggtagagcgttccgttggggcggttaagccg
gaggttcaagtcctccaacagagacca
1-2tRNA-Glu(ttc)[24100,24177]
gttcagtagacaaaatggtaaagtcaccactcttcaaagtgatct
gagggttcaaatccctctggaacgcca
1-3tRNA-Met(cat)[24268,24344]
tgcgggtatagagaaaggcgtctcacatgtctcattagcatggtatcgg
caggttcgactcctgcacccgcctcca
1-4tRNA-Asn(gtt)[24429,24505]
ggttaggaagcacataaggatgtgcggtcgcctgtaagcgaatggcac
agggttcgaatccctgactaaccgcca
1-5tRNA-Tyr(gta)[24515,24602]
gtgtcggtatcccgtagatggtagcgggtgggactgtaaatccctgtca
ttgagactcggtaggttcgactcctacacggcacacca
1-6tRNA-Asp(gtc)[24608,24685]
ggttatgtagtttaatctggttaaaatactcccctgtcacgggagatgat
gagggttcgaatcccttcgtaaccgcca
1-7tRNA-Lys(ttt)[25115,25190]
ggaagtgtagcagaatggtagcggcagacttttaatctgacaggcgt
gggttcgaatccctccacttctacca
1-8tRNA-Met(cat)[25195,25271]
ggttcagtcgcagataaggtaatgcaagggtctcataagccctatgaatg
tgggttcgattcccatctgaacctcca
1-9tRNA-Ile(gat)[25273,25348]
gctggtatagttaagaaggttataacactcccctgataagggaacatcgg
tggttcgattccacctaccagtacca
1-10tRNA-Trp(cca)[25828,25898]
agggtgagctatggcagcaatagagtctccaaaattcttgattagatt
cgaatctctacaccctgcca
1-11tRNA-Ser(tga)[26331,26420]
ggtagtagcggctaattggcagccaacagtttgaactgttgccact
gtagagatacggtaggggttcgactccttactaccgcc
1-12tRNA-Leu(tag)[26675,26751]

gcacctatagcccaactggttagaggcagcagacttagaatctgctcagtg
tgagttcgaatctctctaggtgtacca
1-13tRNA-Lys(ctt)[26759,26834]
gcagggttagcaaaatgggttatgcggctgactcttaatcagtaagacgat
gggttcaattccctccacgtgtacca
1-14tRNA-Ala(tgc)[26841,26916]
ggggcatagtttatatggttaaaatcgagtttgcaaacttggaact
gagttcaattctcagtgactccacca
1-15tRNA-Gly(tcc)[26923,26997]
gcatccatagtttaaacgggaaaattacagtcttccaaactgaggttgag
gggtcgattccctctggatgctcca
1-16tRNA-Thr(tgt)[27005,27080]
gctcctatcgataattggttattacggttgccttgaagcaacttatca
gggttcgagtccttgggagcacca
1-17tRNA-Val(tac)[27177,27251]
actcgcttagtttatggtaaaacatcaccttacaagatgaagaaaaa
ggttcaagtccttagtgagtacca
1-18tRNA-Leu(caa)[27253,27330]
gttcagtatcccaattggcagaggatgcaagctcaaacctgtattagt
gacggttcgaatccgtcttggaacacca
1-19tRNA-Arg(acg)[27336,27411]
gcaggattagttcaaatggaaagagcaacagctctacgaagctgtaatag
gggttcgaatcccttatcctgcgcca
1-20tRNA-Gln(ttg)[28234,28309]
aggggattagtttacaaggttaaaacctcggtcttgaaatcgaagaagt
tggttcaattccaacatcccccgcca
1-21tRNA-Leu(taa)[28312,28390]
gctccattactccaattggcagagaggccagactaaaatctgtgttatg
tatcggttcgaatccgatatggagtacca
1-22tRNA-Gln(ctg)[28396,28471]
agcggtatagcataactggcaatgcagcagctctgaagctgtcctatta
aggttcaaatcccttatgccgtgcca
1-23tRNA-His(gtg)[28503,28578]
gtggccttatcataaatggttaatgacctatgctgtaacatggtctatac
gggttcaaatcccgtaggtcacccca
1-24tRNA-Phe(gaa)[28585,28660]
agtccaagtagcttatatggttaaagcgctgtctgaaaaacatgagaag
agggttcaaatcccactggactacca
1-25tRNA-Ser(gct)[29414,29506]
ggaagattaaccctaaaaggtaaggagcagtttgctaaactgccagtag
ctgagaaatcggtgtaccagttcaagctgggtatcttctcca
1-26tRNA-Cys(gca)[29511,29586]
gaatccgtgacagaaacggctatgtgcctgtctgcaaacaggtttataa
gggttcgagtccttcggattctcca

>KP869110.1 Escherichia coli O157 typing phage 12, complete genome

1-1tRNA-Ile(gat)c[419,494]
gctggtatagttaagaaggtataacactcccctgataagggaacatcgg
tggttcgattccacctaccagtacca
1-2tRNA-Met(cat)c[496,572]
ggttcagtcgcagataaggtaatgcaagggtctcataagccctatgaatg
tgggttcgattcccatctgaacctcca
1-3tRNA-Lys(ttt)c[577,652]
ggaagtgtagcagaatgggtgatgcggcagacttttaatctgacaggcgat
gggttcgaatccctccacttctacca
1-4tRNA-Asp(gtc)c[1082,1159]
ggttatgtagtttaatctggttaaaatactcccctgtcacgggagatgat
gagggttcgaatcccttcgtaaccgcca
1-5tRNA-Tyr(gta)c[1165,1252]
gtgtcgttatcccgtagatggtagcgggtgggactgtaaatccctgtca
ttgagactcggtagggttcgactcctacacggcacacca
1-6tRNA-Asn(gtt)c[1262,1338]
ggttaggaagcacataaggtatgtcggtcgcctgtaagcgaatggcac
agggttcgaatccctgactaaccgcca
1-7tRNA-Met(cat)c[1423,1499]
tgcgggtatagagaaggcgctctcacatgtctcattagcatgggtatcgg
cagggttcgactcctgcacccgcctcca
1-8tRNA-Glu(ttc)c[1590,1667]
gttcagtagacaaaatggtaaagtcaccactcttcaaagtgatatct
gagggttcaaatcccttctggaacgcca
1-9tRNA-Pro(tgg)c[1675,1751]
ctctgttagctcagcttggttagagcgttccgttggggcggttaaggccg
gagggtcaagtccccaacagagacca
1-10tRNA-Cys(gca)c[84667,84742]
gaatccgtgacagaaaacggctatgtcctgtctgcaaaacaggttataa
gggttcgagtccttcggttctcca
1-11tRNA-Ser(gct)c[84747,84839]
ggaagattaaccctaaaaggttaaggagcagtttgctaaactgccagtag
ctgagaaatcggtgtaccagttcaagtcggtatcttctcca
1-12tRNA-Phe(gaa)c[85593,85668]
agtccaagtagcttatatggttaaagcgcgtgtctgaaaaacatgagaag
agggttcaaatcccactggactacca
1-13tRNA-His(gtg)c[85675,85750]
gtggccttatcataaatggtaatgacctatgctgtgaacatgggtctatac
gggttcaaatcccgtaggtcacccca
1-14tRNA-Gln(ctg)c[85782,85857]
agcggtagtagcataactggcaatgcagcagtcctctgaagctgtcctatta
agggttcaaatccttatgccgtgcca
1-15tRNA-Leu(taa)c[85863,85941]

gctccattactccaattggcagagaggccagacttaaaatctgtgtatg
 tatcgggtcgaatccgatatggagtacca
 1-16tRNA-Gln(ttg)c[85944,86019]
 aggggattagttfacaaggttaaacctcggctttgaaatcgaagaagt
 tggttcaattccaacatccccgccca
 1-17tRNA-Arg(acg)c[86842,86917]
 gcaggattagttcaaatggaagagcaacagctctacgaagctgtaatatg
 ggggtcgaatcccttatcctgcgcca
 1-18tRNA-Leu(caa)c[86923,87000]
 gttccagatcccaattggcagaggatgcaagctcaaacctgtattagt
 gacgggtcgaatccgtcttggaacacca
 1-19tRNA-Val(tac)c[87002,87076]
 actcgcttagtttataggtaaaacatcaccttacaagatgaagaaaa
 ggttcaagtccttagtgagtacca
 1-20tRNA-Thr(tgt)c[87173,87248]
 gtcctatcgataattgggtattacgggtgccttgaagcaacttatca
 ggggtcgaatcctgtgggagcacca
 1-21tRNA-Gly(tcc)c[87256,87330]
 gcatccatagtttaaacgggaaaattacagcttccaaactgaggttgag
 ggttcgattccctctggatgctcca
 1-22tRNA-Ala(tgc)c[87337,87412]
 ggggtcatagtttatatgggttaaaatcgagtttgcaaaactgggaact
 gaggtaattctcagtgactccacca
 1-23tRNA-Lys(ctt)c[87419,87494]
 gcagggtgtagcaaaatgggtatgcggctgactcttaacagtaagacgat
 ggggtcaattccctccacctgtacca
 1-24tRNA-Leu(tag)c[87502,87578]
 gcacatatagcccaactggtagaggcagcagacttagaatctgctcagtg
 tgagttcgaatctctctaggtgtacca
 1-25tRNA-Ser(tga)c[87833,87922]
 ggtagtagcggctaattggcagccaaacagcttgaaaaactgttgccact
 gtagagatacggtaggggtcgaactccttacttaccgcc
 1-26tRNA-Trp(cca)c[88355,88425]
 aggggtgagctatggcagcaatagagtcctcaaaattcttgattagagtt
 cgaatctctacaccctgccca

>KP869101.1 Escherichia coli O157 typing phage 3, complete genome

1-1tRNA-Met(cat)[76953,77029]
 ggccctgtagctcaatggtagcagcagctcccctcataagggaaaggta
 ccagttcgaatctggctgggtcacca
 1-2tRNA-Arg(tct)[77033,77109]
 cgaggcatagctcaattgtatagagcaacggacttctaaccgtaggttg
 aaggttagaatccttctgtctcgacca

>KP869103.1 Escherichia coli O157 typing phage 5, complete genome

1-1tRNA-Pro(tgg)c[86825,86901]

ctccgcgtagctcagcttggtagagcgctgattgggatcaggaggtcg
agtggtcgaatcactccgtggagacca
1-2tRNA-Met(cat)c[86913,86987]
ggccctgtagctggaaggtcaagcaagcgactcataatgccagacggt
ggtcaattccaccaggccacca
1-3tRNA-Thr(tgt)c[86989,87064]
gctgatgtagcacaatcggtagtgaattgattgtaataataggtgt
aggttcaagtccctgccatcagcacca
1-5tRNA-Ser(tga)c[87267,87357]
ggagggtaggagcaatggtgctcaagcggtcttgaaaaccgtcccgttg
aggatgactcgaatggttcgattccattactctccgcca
1-6tRNA-Tyr(gta)c[87472,87558]
ggggagttatcccgtagaggtagcgggtgtagactgtaaatctattgtcat
tgcgactcgggtggttcgactccaccactccccacca
1-7tRNA-Arg(tct)c[87563,87637]
gccctgtagcttagtggtataaagcagcgccctctaagccgttgacact
ggttcgagtcagtcacggggtgcca

>KX229736.1 Campylobacter phage PC5, complete genome

1-1tRNA-Met(cat)[60294,60368]
gggcgagtagctcaatggtagagcaaccggctcataaccggttggtata
ggttcgattctctatttcgccacca
1-2tRNA-Asn(gtt)[60567,60641]
tcgagattagcacagtggtagtgaatcgactgtaatcgatgagtcaga
ggttcgaatcctctatctgcagcca
1-3tRNA-Tyr(gta)[60660,60744]
gtagaagtaggataattggaatccaccagactgtaaatctggcgtcttt
tggcattgatggttcaagtcacatccttctacacca

>CP011970.1 Peptoclostridium phage phiCDIF1296T strain DSM 1296, complete sequence

1-1tRNA-Ser(gct)[128597,128687]
ggagaggtactcaagtggtaaagaggatgttgctaaactattaggtca
attaattgatacagggttcaaatcccttctctctcca

>KR052481.1 Sinorhizobium phage phiM19, complete genome

1-1tRNA-Thr(tgt)c[78771,78854]
gccggtatagccaagcggtcgaaggcacctgattgtaatcaggtattca
aacgtcggcagttcgaatctgtctaccggctcca
1-2tRNA-Gln(ttg)c[78855,78928]
ttgcccttagttcagttggtagaacgtcgaatttggtttcgaaggtccg
tggttcgaatccacgagggtgaagc
1-3tRNA-His(gtg)[83801,83877]
tcatggatggtgttagtctggtagcacgcggatgtggaccgcaagca
taggttcaaactcattccatggacca
1-4tRNA-Leu(caa)[92642,92729]
tgggagataaaggaaactaccagttcaattctggttctccaagagtaa
tcgagtggtgtaggttcgagtcctacctccccagcca

1-5tRNA-Met(cat)[93280,93356]
 tgcgggtagtagcagtggttagctcgtctgcctcataagcagaagggtca
 tcagttcgaatctgatccccgaacca
 1-6tRNA-Cys(gca)[94043,94117]
 gacgagaaggcagaagggttatcgcgggcgttgcaaccgccgtatgtgtc
 ggttcaagtcggctctcgtctcca
 1-7tRNA-Lys(ttt)[98675,98751]
 gcgcgcttaactcagttggttagagtgccgacctttaagtcgtttgtcc
 ccggttcgagtcgggagcgccacca
 >KR296695.1 Salmonella phage 41, complete genome
 1-1tRNA-Met(cat)[85026,85102]
 ggttctgtagcttagatggttagagcgcttcctcataaggaaggggtcg
 caggttcaaatcctgccagaaccacca
 1-2tRNA-Lys(ctt)[85796,85871]
 ggggtattaactcagcggttagagtagcgcccttaagccgaagggtcga
 aggttcgaatcctcatgccccacca
 1-3tRNA-Thr(tgt)[88074,88149]
 gctcgtatagctcagttggttagagaactccctgtaaggagaaggctgt
 gggttcgaagcctactgcgagcacca
 1-4tRNA-Arg(gcg)[88156,88229]
 tcgttgatagccttagcggtaaaggccactctgcgcaagtgggtcagtg
 gttcgaatccactcaacgagcca
 1-5tRNA-Leu(taa)[88531,88606]
 tgcgtccttggtccaatttggttagaggcatgaggcttaagacttcaggtt
 ccagttcgaatctggaggcgccacc
 1-6tRNA-Arg(tct)[88609,88682]
 cggggtgtagtctaaggatagcagcggtcttctaaccgctatatgctg
 gttcgaatccagtcaccccgacca
 1-7tRNA-Cys(gca)[88799,88872]
 gcacgggtgctggagtggaacagcttcggatgcaaaccgaatgtcagga
 gttcgattcttctaccgtgctcca
 1-8tRNA-Tyr(gta)[89528,89617]
 gtgtcgttagaccgtagggtagcggggcagactgtaaatctgctggctc
 gaaagggttcgggtagttcgactctatcacggcacacca
 1-9tRNA-Ile(gat)[89625,89700]
 gggagtatagtcagtttagtagagcgtcgaccgataatcgagaggtcgc
 aggagcaaagcctgctactcccacca
 1-10tRNA-Glu(ttc)[90467,90542]
 gctcctatcggctaagtggataggccgccagactttcaatctggaaatcc
 gagttcgattctcggtaggagtgcca
 1-12tRNA-Trp(cca)[90628,90704]
 agggacttagcacaattggctagtcagcggattccaaatccgcaggttc
 tgggttcgaatcccaaggtccctgcca
 1-13tRNA-Gln(ttg)[90710,90784]

aggaggatgggtgaattggttagcacacgggtctttgaaatccgtagttc
aggttcagtcctgatcttcctgccca
1-14tRNA-Ser(gga)[91017,91108]
ggtggaaatggtcgagcgggttaaagacagcaccttgaaagggtcgggccc
cctcacaggggtccgtaggttcgaatcctactccaccgccca
1-15tRNA-Ser(gct)[91115,91208]
ggaagattaaccctaatacaggaaggatctctttgctaaagagacagta
gccccggaaaggggtgtgtcagttcaaatctgacatcttcctcc
1-16tRNA-Ser(tga)[91209,91297]
ggagagcagggcgcgtgggtgcgtaatccggttgaacccggacccatcgt
agcgatacggtgacagttcgattctgttgctctcctcca
1-17tRNA-Asn(gtt)[91451,91535]
gacgagttggcctagtggttgggcggcgcccgttaagccgtgagtga
actcaaggaaggttcaaatccttcactcgtcgcca
1-18tRNA-Asp(gtc)[91543,91618]
ggggatatggattagcggtaaatactggcctgtcacgccggagtcac
gggttcgaatcccgttatcctcgcca
1-19tRNA-His(gtg)[91623,91696]
gggaaattagtttaagtggtataatggcctctggtgctgagggcgtctcct
gttcgattcaggaatttcccgccca

>KR698074.1 Escherichia phage APCEc02, complete genome

1-1tRNA-Arg(tct)[77260,77334]
gcctcttagcttagtgataaagcagcggccttctaagccgttgacact
ggttcgagtcagtagcgggtgccca
1-2tRNA-Tyr(gta)[77339,77425]
ggggagttatcccgtagaggtagcgggtgtagactgtaaatctattgtcat
tgcgactcgggtggttcgactccaccactccccacca
1-3tRNA-Ser(tga)[77540,77630]
tgagggtagggagcaatggtgctcaagcggctctgaaaaccgtcccgttg
aggatgactcgalgatggttcgattccattaccctcagcca
1-5tRNA-Thr(tgt)[77833,77908]
gctgatgtagcacaattggtagtgaattgattgtaataataggttgc
aggttcgagtcctgctatcagcacca
1-6tRNA-Met(cat)[77910,77984]
ggccctgtagctggaaggttcaagcaagcagcactcataatgccagacggt
ggttcaattccaccagggccacca
1-7tRNA-Pro(tgg)[77996,78072]
ctccgcgtagctcagcttggttagagcgctgatttgggatcaggaggtcg
agtgttcgaatcactccgtggagacca

>KT187252.1 Bacillus phage PBC6, complete genome

1-1tRNA-Met(cat)c[37,109]
agggttatagctcagtggttagtagcgtgggtctcataagccaaggctcgt
aggttcgactcctactagcccta
1-2tRNA-Leu(taa)c[253,339]

tggcggagtgttgaattggtagacataacggacttaaaatccgttgctc
gttagggcgtggagggttcgagtcacaccttcggtat
1-3tRNA-Ile(gat)c[349,425]
gctagggtagctcagtcaggtagagcagtgcttgataaggcattggtcg
aaggttcaaactctacccttagtacca
1-4tRNA-Tyr(gta)c[427,513]
gggcgagtatgcaaattggtgaagcaagcggctgtaaaaccgtgacgta
agatacattgcaggttcgagtcctgccttcccacca
1-5tRNA-Phe(gaa)c[650,725]
ggacggatagctcagttggtagagcagaggctgaaaatcctcgtgctgt
aggttcgatccctactccgtccacca
1-6tRNA-Pro(tgg)c[806,881]
tgtgatatactcagattggtagagcgcttgcttgggagcaagaagtc
gtagggtcgattcctgctatccgcat
1-7tRNA-His(gtg)c[888,960]
cgggggtgtggcgtaacggttaacgaagtgactgtggatcactgaatagg
ggttcgattcccctcatcctgac
1-8tRNA-Gln(ttg)c[1043,1115]
tttcggagtagccaagtggtaaggcaatagactttgactctatgatcggt
ggttcgagaccatcctccgaagt
1-9tRNA-Ser(tga)c[1197,1284]
cgaggaatactcaagtggataaaagaggatggtcttgaaaaccattaggc
gtgaaagcgtgcgggggttcgaatccctcttctcgcgc
1-10tRNA-Arg(tct)c[1286,1362]
acctctatcgccaagcggatcaaggcaacgggcttctatcccgttaatcg
ggcgttcgaatcgctctagggtgcca
1-11tRNA-Glu(ttc)c[1403,1477]
gtcccattggtgaaattggctaacacactcgactttctatcgagattca
gggggttcgaatcccctatgggttac
1-12tRNA-Asp(gtc)c[1984,2057]
ggctcgtagtttaacggtaaaatacatgactgtctatcatgggtcacgg
gttcgactcccgtacgggtcgcga
1-13tRNA-Thr(tgt)c[2063,2138]
gccttctagctcagttggtagagcgattgacttgtaatcaatagtcgt
gggttcgattcctacagtcggcacca
1-14tRNA-Gly(tcc)c[2143,2218]
ggggcattagtatatcggttcattatcctggctccaaccaggaggaggt
cgggttcgattccgacatgtccctcca
1-15tRNA-Asn(gtt)c[2409,2484]
gtgcctgtagctcagttggtagagcaaaaccctgtaaggttgaggtcgt
aggttcgaaccctaccaggtacgcca
1-16tRNA-Cys(gca)c[2499,2571]
gaggatgtaccgaagcggctaacggctaggttgcaaccctagtggtcat
gggttcgagtcctcatctctct

1-17tRNA-Ser(gct)c[2581,2674]
 tggaggggtactcaagcgggaagagggcagtttgctaaactgtagtac
 ctactaataatagtagcaaggggtcgaatccctccctccgt

>KT001917.1 Escherichia phage Murica, complete genome

1-1tRNA-Pro(tgg)c[60714,60790]
 ctccgcgtagctcagcttgtagagcgctgattgggatcaggaggtcg
 agtggtcgaatcactccgtggagacca

1-2tRNA-Met(cat)c[60802,60876]
 ggccctgtagctggaaggtcaagcaagcgactcataatgccagacgg
 ggtcaattccaccaggccacca

1-3tRNA-Thr(tgt)c[60878,60953]
 gctgatgtagcacaatcgtagtgcaattgattgtaataataggtgt
 aggttcaagtcctgccatcagcacca

1-5tRNA-Ser(tga)c[61156,61246]
 ggagggtagggagcaatggtgctcaagcggcttgaaaaccgtccgtg
 aggatgactcgaatggttcgattccattactctccgcca

1-6tRNA-Tyr(gta)c[61361,61447]
 ggggagttatccctagaggtagcggtagactgtaaatctattgtcat
 tgcgactcgggtggttcgactccaccactccccacca

1-7tRNA-Arg(tct)c[61452,61526]
 gccctgtagcttagtgataaagcagcgccctctaagccgttgacact
 ggttcgagtcagtcacgggtgcca

>KU521356.1 Pseudomonas phage KTN4, complete genome

1-1tRNA-Thr(tgt)c[267087,267163]
 gccgctatagctcagctaggtagagcaacgcacttgtaatgcgtaggtcc
 tccgttcgattcggagtgccgaccca

1-2tRNA-Asn(gtt)c[270882,270957]
 tccgtgatagctcagtcggtagagcaagtgactgtaatcactgggtccc
 tgggtcgagtcaggtcacggagcca

1-3tRNA-Asp(gtc)c[270964,271040]
 gcgctcatagttcagttggttagaataccgcctgtcacgagggtgtca
 ggggttcgagtccttgggcgcgcca

1-4tRNA-Met(cat)c[272013,272089]
 gggcctatagctcagttggttagagcaggcgactcataatcgcttggtcg
 caggttcaagtctgctgggcccacca

1-5tRNA-Pro(tgg)c[272412,272487]
 cggagtgtagcgcagttggtagcgcgctgcttgggagcaggatgtcgg
 gatttcgagtcctccactccgacca

1-6tRNA-Leu(taa)c[272497,272581]
 gcccgaaatggtaaatggtaaacagaaagacttaaaatcttccggcta
 cggcttctcggttcgaatccgacttcgggcacca

>KU160494.1 Vibrio phage vB_VmeM-32, complete genome

1-1tRNA-Met(cat)c[27879,27954]
 ggccccttagctcagtggttagagcggctcggtcctaaccgattggtcat

gtgttcaagtcacataggggccacca
 1-2tRNA-Arg(tct)c[27971,28047]
 gcttcgttaactcaattggatagagtacctgccttctaagcaggttgta
 caagttcaaatctgtacgaagcgcca
 1-3tRNA-Asn(gtt)c[28049,28124]
 ggtggattaactcagttggtagagtattgactgttaatcaattggccac
 aggttcgattcctgtatccaccgcca
 >KU255730.1 Escherichia phage phiE142, complete genome
 1-2tRNA-Arg(tct)c[87920,87996]
 cgaggcatagctcaattgtatagagcaacggacttctaataccgtaggttg
 aaggttagaatccttctgtctcgcca
 1-3tRNA-Met(cat)c[88003,88076]
 ggcctgtagctcaacggtagcagcagctcccctcataagggaaggta
 ccagttcgaatctggtctgggtca
 >KU522583.1 Enterobacteria phage ECGD1, complete genome
 1-1tRNA-Met(cat)[61400,61475]
 ggttccatagctcactgacgagcgccacacctcataagtgtcgagggca
 gggattgtaaccctgggaaccacca
 1-2tRNA-Leu(taa)[61507,61592]
 gcaagtgtggtggaattggtgatacacattgtgctaaaacgcaacgctt
 aaatgattgaggttcgaatccctccactgcacca
 1-3tRNA-Ser(tga)[61920,62009]
 ggaaggtaggcgagcggtgcgaaccaggttgaaacctggccattg
 tagcgatacggatggttcgactccattatcttctcca
 1-4tRNA-Ser(gct)[62189,62274]
 ggtagattggtgaaatggtagccacaacagtttgctaaactgtcgtcgga
 aacggcgtgtaggttcaagtctacatctaccgcca
 1-5tRNA-Lys(ttt)[62401,62476]
 acatcgtagcttagttggtagagcaagggcttttaactccaaggtcga
 aggttcgaatccttcacgatgtacca
 1-6tRNA-Tyr(gta)[62482,62567]
 gtaggtatcgcatagcggcaattgctggagactgtaaatctcttgcctt
 cgggcttcgttggttcgagccaactacctgcacca
 1-7tRNA-Asn(gtt)[62575,62659]
 gatggattggcctagtgggtggcgacggactgttaatccgtgaacgaaa
 gttctagcaaggttcaaatccttgatccatcgcca
 1-8tRNA-Thr(tgt)[62750,62823]
 gtcctatcgataacggctattacggttccttgaagcaacttatcag
 gttcgagtccttgtgggagcacca
 1-9tRNA-Gly(tcc)[63226,63300]
 gcgggtatagtgttaatggtagcatatgaggtttccaccctccaggtgca
 ggttcaagtcctgttactcgctcca
 1-10tRNA-Gln(ttg)[63400,63473]
 tggagattagcctagtgggaagcaacggcctttgaagtcgtgatgactag

gttcgattcctagatctccagcca
1-11tRNA-Pro(tgg)[63481,63556]
cagtgcgtagcgcagttggtagcgtgggagcttggatgcttcgggtcgc
aggttcgagtcctgccgcactgacca
1-12tRNA-Phe(gaa)[63562,63636]
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ggatcgttaccatctctctgcacca
1-13tRNA-Leu(tag)[63714,63798]
ggctaagtgggtggaatggatatacacgatacgcttagaacgtattgcccc
agggattgtgagttcgagtcaccttagctacca
1-14tRNA-Met(cat)[63887,63962]
tgatagtggaagctggcgttccgagtcgttcataaggcattgcgagaa
gagttcgattctcttactatcaacca
1-15tRNA-Met(cat)[63978,64056]
cgcgggatagaggagtctggctcctcgccagtttcatatgctggagat
catcgggtcaaatccgattcccgcctcca
1-16tRNA-Ile(gat)[64203,64278]
tgtggtatcgtacagalggtagtacactcgaccgataatcgagaaacaa
cggttcgactccgtttaccagacca

>KU574722.1 Pectobacterium phage CBB, complete genome

1-1tRNA-Ser(gct)[268791,268880]
ggtgagttgggggagtggttaaccagcaccctgctaaggtgtcggcct
cgcaagaggcccggtgggttcaaatcccacactcaccgcca
1-2tRNA-Trp(cca)[272675,272749]
gggagtatcgatatcggctattatgttcgggtccaaccgaaagagcag
ggttcaactccttgtgtcccgcca
1-3tRNA-Thr(tgt)[275819,275892]
gcttctatcgataatggcttattactttggcttgaacccaaaaatct
gcgttcgattcgagtggaagcac
1-4tRNA-Leu(tag)[280357,280442]
ggggatgtggcgaaattggtagcacgcatgagtttaggtactcacgcct
tcgggcgtgtcgggtcgagtcgaccatccccacca
1-5tRNA-Arg(tct)[288345,288419]
gctcctatagttaagtggaaataacaggaaccttctaagttctagtcct
ggttcgattccaggtgggagtgcca
1-6tRNA-Pyl(cta)[289995,290067]
gccttttagctcagcggtagagcgggatctctaaatcctttgtcgtg
ggttcgaatccctccatcggcac
1-7tRNA-Leu(taa)[290283,290369]
gcgggtgtggcggtattggtagtagcaaggatttaaaatccctcagac
ttcggctttaggttcgaatctcatcaccgtacca
1-8tRNA-Met(cat)[290748,290824]
ggccctttgtactgtcgcgtgaaagtactctgctcataacagatgtaagg
tgggttagactcccacaaggccacca

1-9tRNA-Leu(taa)[292672,292756]
gcgttttggtgaaattggtaaacacaggagacttaaaatctccgcctt
taggtttgtcggttcagtcgaccagacgcacca
1-10tRNA-Leu(caa)[299089,299174]
gggaatatggcgaattggtagtcgaccacactcaaaatgtggcgagg
caactcgtgtcggttcagtcgactattccacca
1-11tRNA-Glu(ttc)[302061,302132]
gttcccatcgtctagtggtaggactttgactttctatcaaaaacctcg
gttcgaatccgggtgggaacgc
1-12tRNA-Tyr(gta)[302143,302231]
gggggaatagtcgtagttggtagcgggcagactgtaaatctgctacac
gaaagtgtcgggtggttcgactccatcttcctcacca
1-13tRNA-Ser(tga)[302564,302654]
ggaagattggcagagcggttaatgcacatgtctgaaaacatgcggggg
ttaatagccctccctgggtcgaatcccaggtcttcacca
1-14tRNA-Ile(gat)[304227,304300]
agcgggttagtatagagcattacactcgactgataatcgagcgaaggcg
gatcgttaccgccaccgcctacca
1-15tRNA-Asn(gtt)[307123,307195]
gactgtatagctcagagcagagcggctccctgttaaggagaaggcggg
atttcgaaattccctacggtcgc
1-16tRNA-Gln(ttg)[307716,307789]
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aggttcaagtccttgtatgcctgc
1-17tRNA-Gly(tcc)[308195,308267]
gcatccatcgtatatacggctattataattggcttcaccaatagaacgg
agttcgaccctccgtggatgctc
1-18tRNA-Asp(gtc)[309725,309797]
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gtttcgattaccctgggtccgc
1-19tRNA-Arg(acg)[310642,310718]
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cgcaggttcgagtcctgccatgaacac
1-20tRNA-Pro(tgg)[311781,311853]
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agttcgattcttctactggagac
1-21tRNA-Pro(tgg)[311858,311933]
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tggtttgagtcagccatcccgacca
1-22tRNA-His(gtg)[312274,312350]
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cgggttcaagccccgatagtcacacca
1-23tRNA-Phe(gaa)[312636,312712]
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cgagttcgaatctcgcccgcccacca
1-24tRNA-Lys(ttt)[313822,313895]
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gtgttcgattcacacacaggtac
1-25tRNA-Cys(gca)[318801,318878]
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gtgggttcgaatcccactccctgctcca
1-26tRNA-Met(cat)[319753,319828]
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tggatcgtagccagtactgaccacca
1-27tRNA-Met(cat)[320334,320411]
tcgggagtagagcagtcgtggttagcttgcaggctcataaccttgaggtc
ggtggttcaaatccatcctccgcatcca
1-28tRNA-Ala(tgc)[320478,320551]
ggggctatagctcagttgggagagcgtctgcctgcacgtagaaggtaa
cggttcgaacccgtttagctccac

>KU847400.1 UNVERIFIED: Bacillus phage Crookii, complete genome

1-1tRNA-Asn(gtt)[10253,10328]
gtgcttagctcagtaggtagagcagtggtggttaaccactgtgtcgt
tggttcgaatccatcctagcacgcca
1-2tRNA-Asp(gtc)[10333,10406]
tggggatatagtgtagtggtaaacacgcacggctgtctaccgtgaagcac
gagttcgagtcctgtatcctcgt

>KU925172.1 Escherichia phage PE37, complete genome

1-1tRNA-Gln(ttg)[93727,93800]
tgggaattagccaagttggtaaggcactggattttgattccaggatgcaa
aggttcgagtcctttattcccagc
1-2tRNA-Leu(taa)[93801,93887]
gcgagaatggtaaattggtaaggcacagcactaaaatgctgcggaat
gatttccttgggttcgagtccttctcgacca
1-3tRNA-Gly(tcc)[93893,93966]
gcggatatgtataatggtattacctcagactccaatctgatgatga
gttcgattctcattatccgctcca
1-4tRNA-Pro(tgg)[93977,94051]
ctccgttagctcagtttggtagagcgcctgatttgggatcaggaggtcc
aaggttcaaatccttgatggagac
1-5tRNA-Ser(tga)[94053,94142]
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ctccggcgactcatagttcaaatcctatcgctccgcca
1-6tRNA-Thr(tgt)[94148,94223]
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cggttcgattccgtcaatcagacca
1-7tRNA-Met(cat)[94225,94299]
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ggttcaattccaccaggccacca
1-8tRNA-Tyr(gta)[94309,94395]
ggggagtatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggtcgcactccatcactccccacca
1-9tRNA-Asn(gtt)[94400,94474]
ggatgtgtagctcaatggcagagcgcctgttaagcgattgggtata
ggttcgaatcctatcacgtccgcca
1-10tRNA-Arg(tct)[94479,94554]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
aggttcgatccctactgcctcgacca

>KX171211.1 Salmonella phage vB_SenM-2, complete genome

1-1tRNA-Ser(gct)c[132306,132396]
ggaaggttccccgagaggtttaagggactcgactgctaatacgagagtgagg
gcttttagccccgaaggttcgaatccttcaccttccgcca
1-2tRNA-Tyr(gta)c[132824,132905]
gtgagtggtggcagagcggtcgaatgcgcctgactgtaaatcaggtatccc
acgcggtggttcgaatccatccactcacacca
1-3tRNA-Asn(gtt)c[133301,133376]
gacgatgtagttcagtcggtagaacggtggactgtaatccatatgtcgc
aggttcaagtcctgccatcgtcgcca
1-4tRNA-Met(cat)c[133562,133637]
ggccccgtagctcagtggttagagcagtgaaactcataattcattggtcgc
tggttcaagtcagccagggtcacca

>KX495186.1 Bacillus phage PK16, complete genome

1-1tRNA-Met(cat)c[154511,154585]
tacggttatagctcagtggttagagtggtgctcataagcccaaggtcga
tggttcaatcccatctaaccgtatc
1-2tRNA-Leu(tag)c[154678,154762]
gtcagagtggtggaactggtatacatgcggcacttagaatgccgtgcctt
cgggattgtgggttcgactcccacctctgacacca
1-3tRNA-Ile(gat)c[154771,154847]
actagtgtagctcagtcaggtagagcagtgcttgataaggcattggtca
caggttcgaatcctgtcactagtagca
1-4tRNA-Leu(taa)c[154854,154940]
atcggaatgttggaattggttagacataacgcacttaaaatgcgttgctcc
ttggggcgtgaggggttcgagtcctcttccgatacca
1-5tRNA-Tyr(gta)c[154944,155027]
gggcgtgctatcattggagagataagctgactgtaaatcagtggtcgtaa
gactgtggaggttcgaatcctccattccacca
1-6tRNA-Phe(gaa)c[155034,155108]
ggatagatagctgagacgattagcgagtggttgaaaccactagaggtt
ggatcggtcccaactctatccacca
1-7tRNA-Pro(tgg)c[155202,155274]
acgggtgtaggctagaggtcagtcactgcgttggggcgcagatcacgtt

ggttcgatcccaaccactcgtac
 1-8tRNA-His(gtg)c[155368,155441]
 cagtgtgtggtgaagtggcttaacacggacgactgtggatcggttcattcg
 cagggtcgaatcctgtcatgctga
 1-9tRNA-Gln(ttg)c[155519,155594]
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 ggaggttcgacccttcaccgaagt
 1-10tRNA-Ser(tga)c[155670,155757]
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 1-11tRNA-Arg(tct)c[155848,155923]
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 gtgggttcgattcctacaggggggt
 1-12tRNA-Ser(act)c[156043,156116]
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 gagttcgatcctccaaggggcgc
 1-13tRNA-Glu(ttc)c[156119,156194]
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 1-15tRNA-Thr(tgt)c[156873,156949]
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 gttcaactcccgtacgggtcgcca
 1-17tRNA-Asn(gtt)c[157227,157302]
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 1-19tRNA-Ser(gct)c[157427,157515]
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 ctgttaaaggtagcagggttcgaatcccttctctct
 >KX443552.1 Cronobacter phage vB_CsaM_leE, complete genome
 1-1tRNA-Gly(tcc)[50310,50385]
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 >KX552041.2 Escherichia phage ESCO13, complete genome
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ggatcgaaccagccaggccacca
 1-2tRNA-Arg(tct)[57614,57688]
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 1-3tRNA-Ser(gct)[58019,58104]
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 1-6tRNA-Gly(tcc)[58895,58968]
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 1-7tRNA-Gln(ttg)[59067,59142]
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 1-8tRNA-Pro(tgg)[59236,59312]
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 >KX431559.1 Cronobacter phage vB_CsaM_leB, complete genome
 1-1tRNA-Gly(tcc)[49614,49689]
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 gggttcgagtccttcacctgctcca
 >KX431560.1 Cronobacter phage vB_CsaM_leN, complete genome
 1-1tRNA-Gly(tcc)[49078,49153]
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 >KX721256.1 Mycobacterium phage Erdmann, complete genome
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 tccgggttcgactcccgggcagggtac
 1-3tRNA-Leu(gag)[31928,32002]

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1-4tRNA-Leu(caa)[32003,32076]
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gggttcgaatcccccccacggtac
1-5tRNA-SeC(tca)[68480,68576]
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1-7tRNA-Trp(cca)[92535,92610]
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1-8tRNA-Tyr(gta)[92612,92698]
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ccgggacggtgaggttcgattcctcagtcggtacca
1-9tRNA-Pyl(cta)[93808,93880]
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gttcgattccggcatggtgcacc
1-10tRNA-Met(cat)[94030,94104]
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cgtgttcgaatcacgccaccgcccac
1-11tRNA-Cys(gca)[94231,94302]
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gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[94307,94381]
ggtccgttgagtagatggatatctgccaccctctcaagtgagatca
cgggttcaagtcctacggactgc
1-13tRNA-His(gtg)[94383,94456]
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gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[94618,94692]
gggcctgtagtccaattggtagagcagcatccttgaagatgacggctg
tcggttcgaatccgacctggtccac
1-15tRNA-Phe(gaa)[94882,94954]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[94960,95033]
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aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[95152,95224]
gccttcgtagctcagtggtagagctgtcgctcttaagcgataggtcgtt
ggttcgaatccagccgggggcac

1-18tRNA-Glu(ttc)[95229,95305]
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cgcgggttcaattcccgtcccgatcgc

1-19tRNA-Gly(tcc)[95385,95457]
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ggttcgattcctgtcatccgctc

1-20tRNA-Thr(cgt)[95518,95592]
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cggttcgagtcggacagcagcccc

1-21tRNA-Thr(tgt)[95593,95665]
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cgttcgatccgggtagaggctc

1-22tRNA-Thr(ggt)[95725,95797]
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ggttcaatccccgactcagctc

1-23tRNA-Gly(gcc)[97120,97193]
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gggatcgtaacccgttcttcgctc

1-24tRNA-Asp(gtc)[97197,97269]
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gtatcgtaatccgtcagggtcgc

1-25tRNA-Met(cat)[97329,97401]
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ggttcgattccagggtgaggtac

1-26tRNA-Ile(gat)[97407,97481]
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ggtgttcgattcaccgagcaggtac

1-27tRNA-Arg(acg)[97575,97647]
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tgttcgattcgcgttagggcac

1-28tRNA-Val(gac)[97691,97763]
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ggttcgaaacctcgcatggacac

1-29tRNA-Arg(cct)[97937,98010]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac

1-31tRNA-Gln(ttg)[98551,98626]
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1-32tRNA-Arg(tct)[98630,98705]
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1-33tRNA-Gln(ctg)[126301,126375]
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 >KX721255.1 Mycobacterium phage Yucca, complete genome
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 1-3tRNA-Leu(gag)[31850,31924]
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 1-4tRNA-Leu(caa)[31925,31998]
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 ggttcgaatcccgcacgggtac
 1-5tRNA-SeC(tca)[68159,68255]
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 1-6tRNA-Pro(tgg)[91508,91582]
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 1-7tRNA-Trp(cca)[91597,91667]
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 cgattccctccaggcctgcca
 1-8tRNA-Pyl(cta)[92804,92877]
 tgcgagatcgtgcacggcgactagagcttctaaccctccgactcgcgg
 gttcgactcccgcactcgcaccc
 1-9tRNA-Met(cat)[93025,93099]
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 1-10tRNA-Cys(gca)[93314,93385]
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 1-11tRNA-Glu(ctc)[93453,93524]
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 gttcgatcctcggtaggtgc
 1-12tRNA-His(gtg)[93526,93599]
 gtggccgtagttcagccggtagaacgctgggttgtgatccagtcgtcga
 ggggttcgagtcctccggtcaccc
 1-13tRNA-Ala(tgc)[93764,93837]
 gggcctatagctcatctggtagagcgctgccttgcaagcaggaggcggc
 aggttcaagtcctgttaggtccac

1-14tRNA-Phe(gaa)[94027,94099]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgagtcctcgtgtcggcac
1-15tRNA-Val(cac)[94105,94178]
gtccgttagctcagctggaagagcgtcggccacacccgagaggccgc
aggttcgalccctgcaatggacac
1-16tRNA-Lys(ctt)[94297,94369]
gccttcgtagctcagtggtagagctgtcgcctttaagcgataggtcgtt
ggttcaaatccagccgggggcac
1-17tRNA-Glu(ttc)[94373,94448]
ggtcgggtggtctgttggcaggccggtcgggttttcacccggcgtcatc
gcgggttcgattcccgctcccactgc
1-18tRNA-Gly(tcc)[94578,94650]
gcgggtgtggccgaatggctcaggcaccagacttcattctggctacgca
ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[94710,94784]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cgggttcgagtcggacagcagcccc
1-20tRNA-Thr(tgt)[94785,94857]
gcctctgtgtccagcggcacggacatccgccttgaagcggaggacccc
cggttcgatccgggttagaggctc
1-21tRNA-Thr(ggt)[95265,95337]
gtcgggttagctcagtggtagagcgttcctctggtatgggaaaggccgg
ggttcaatccccgactcagctc
1-22tRNA-Gly(gcc)[97082,97157]
gcggttatagctcagcctggccagagcatcacgttgccaacgtgaacgtc
gcgggttcaaatcccgtagccgctc
1-23tRNA-Asp(gtc)[97171,97243]
ggcctgtagctcagaggaagagcacccgcctgtcagcgggaggtcgcg
gtatcgtaatccgtcagggtcgc
1-24tRNA-Met(cat)[97303,97375]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-25tRNA-Ile(gat)[97381,97455]
gcctgttagcggactggtcgtccgatccaagctgataactggcgtaagc
ggtgttcgattcaccgagcaggtac
1-26tRNA-Arg(acg)[97549,97621]
gcctctatggtccaacggatatgacgccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-27tRNA-Val(gac)[97664,97736]
gtccgtgtagctcaggggtagagcgcctgctcgacacgcaggaggaccga
ggttcgaaacctcgatggacac
1-28tRNA-Arg(cct)[97910,97983]
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aggttcgaatcctctcggaggcac
1-30tRNA-Gln(ttg)[98524,98599]
tggggtatggtggcaatctggcagtcgccgaggacttgactccggaggt
gcaggttcgagtcctgctaccccatc
1-31tRNA-Arg(tct)[98603,98676]
gccctttagctcagtgacagagcggcgagcttctacctcgcgggccgg
gagttcgaatcctccaggggcac
1-32tRNA-Lys(ttt)[98744,98820]
gggccggtatcttagtctggtcaaagaagtgacttttaacgcgcgcc
gtgggttcgaatcccacccggcccacc
1-33tRNA-Gln(ctg)[126834,126908]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[126915,126990]
tggggtgccgttaatcaggcaaacgagcggactgtaatccgccctgc
aggttcgaatcctgccacccagcca

>KX781992.1 Mycobacterium phage Gabriel, complete genome

1-1tRNA-Ser(gct)[30695,30778]
ggagggtgagcatcaggtgatgcagcgagattgctaataccgtacggtaa
ccaccccgtaggttcgaatcctcctccctccgc
1-2tRNA-Leu(cag)[30971,31046]
gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt
tgagttcgaatctcaccgggagtac
1-3tRNA-Leu(gag)[31166,31240]
gtctctgtaggcaaatcgaaaagccgcatcttgagggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[31241,31314]
gccgtggtaggccatctggcgagccgagttcaagtttcggtgtttgc
gggttcgaatcccggccacgtac
1-5tRNA-SeC(tca)[66734,66830]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccgggagaaccgaccggaacatcccggtcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[90698,90770]
cggggtgtagttcagtggaagagcgttggttgggaccaagatgtcgca
ggttcgaatcctgtcaccccgac
1-7tRNA-Trp(cca)[90787,90862]
tggggtgaagccgatctggaaggcagcggtctcaaagccgtctcatagc
gggttcgaatcccgctacccctgccca
1-8tRNA-Tyr(gta)[90864,90950]
gccgcacatgcccaactggtgttgggagcaggctgtaaccctgtggcct
tcgggacggtgaggttcgattcctcagtcgggtacca
1-9tRNA-Pyl(cta)[92059,92131]
gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc

1-10tRNA-Met(cat)[92281,92355]
agcgggttagagcagctaggtagctcgccgggctcataaaccggaggacg
cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[92482,92553]
gcgccttggcggaatggctacgtgctcggtgcaacccgagttatccc
gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[92558,92632]
ggtcggttgagtagatggatatctgccaccctctcaagtgagatca
cgggttcaagtcctacggactgc
1-13tRNA-His(gtg)[92634,92707]
gtggccgtagttcagccggtagaacgctgggttgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[92869,92942]
gggcctatagctcatctggtagagcgctgccttgcaagcaggaggcggc
aggttcaagtcctgttaggtccac
1-15tRNA-Phe(gaa)[93132,93204]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtgctggcac
1-16tRNA-Val(cac)[93210,93283]
gtccgttagctcagctggaagagcgctcgggtccacaccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[93402,93474]
gccttcgtagctcagtggttagagctgctgcctctaagcgataggtcgtt
ggttcgaatccagccgggggcac
1-18tRNA-Glu(ttc)[93479,93555]
ggtcgggtcggtctgctggatggccagtcggatttctactccgacatt
cgcgggttcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[93635,93707]
gcgggtgtggccgaatggctcaggcaccagatttccactctggctacgca
ggttcgattcctgtcatccgctc
1-20tRNA-Thr(cgt)[93767,93841]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cgggttcgagtcggacagcagcccc
1-21tRNA-Thr(tgt)[93842,93914]
gcctctgtggccagcggcacggacatccgccttgtaagcggaggacccc
cgttcgatccgggtagaggctc
1-22tRNA-Thr(ggt)[94322,94394]
gctgggttagctcagtggttagagcgttcctctggtatgggaaagggccgg
ggttcaatccccgattcagctc
1-23tRNA-Gly(gcc)[95717,95790]
gcgaaggtagctcagctggcagagcggcaccttgccaagtgagggtcgc
gggatcgtaacccgttcttcgctc
1-24tRNA-Asp(gtc)[95794,95866]
ggccctgtagctcagaggaagagcggcgtctgtcgaatcgagggtcgcg

gtatcgtaatccgtcagggtcgc
 1-25tRNA-Met(cat)[95926,95998]
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 ggttcgattccagggtaggtac
 1-26tRNA-Ile(gat)[96004,96078]
 gcctgttagcggactggcgtccgatccaagctgataactggcgtaagc
 ggtgttcgattcaccgagcaggtac
 1-27tRNA-Arg(acg)[96172,96244]
 gcctctatggccaacggatatgacgccggtctacggaaccggagatgcg
 tgttcgattcgcgctaggggcac
 1-28tRNA-Val(gac)[96287,96359]
 gtccgtgtagctcagggtagagcgcctgctcgacacgcaggaggaccga
 ggttcgaaacctcgcatggacac
 1-29tRNA-Arg(cct)[96533,96606]
 gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
 aggttcgaatcctctcggaggcac
 1-31tRNA-Gln(ttg)[97147,97222]
 tggggatgggtggcaatctggcagtcgcccggaacttgactccggaggt
 gcaggttcgagtcctgctaccccatc
 1-32tRNA-Arg(tct)[97226,97301]
 gccctttagctcagtgagcagagcggcgagcttctacctcgccggccgg
 gattcgaatctctccagggcacca
 1-33tRNA-Gln(ctg)[124821,124895]
 tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
 ggttcgaatcctaagcgagcagcca
 1-34tRNA-Asn(gtt)[124902,124977]
 tgggggtgccgtaatcaggcaaacgagcggactgtaatccgccctgc
 aggttcgaatcctgccaccccagcca
 >KX664695.2 Escherichia phage ESCO5, complete genome
 1-1tRNA-Met(cat)[57159,57233]
 ggccctgtagctcaatgggagagctgtcggctcataaccgatagtagct
 ggatcgaaaccagccagggccacca
 1-2tRNA-Arg(tct)[57236,57310]
 gtctttatgggtgaatggatagcacaggagtcttctaaactcttagtcaa
 ggttcgattcctgtaaagacacca
 1-3tRNA-Ser(gct)[57641,57726]
 ggtagattgggtgaaatggtagccacgacagtttgctaaactgtagtcgga
 aacggcgtgtaggttcgagtcctacatctaccgcca
 1-4tRNA-Asn(gtt)[57951,58036]
 gatgagttggctgaatgggttaagcggcggactgtaatccgtgttcgaa
 agaacaatataggttcgaatcctatactcatcgcca
 1-5tRNA-Thr(tgt)[58127,58201]
 gtcctatagataatggctattacaacggtttgtaatccgtggatctc
 tgttcgattcagtggtggagcacca

1-6tRNA-Gly(tcc)[58516,58589]
gcgttcttggtgtagcggtagcattccgtcctccaagtcggcggcacga
gttcgatcctcgtagaacgctcca
1-7tRNA-Gln(ttg)[58688,58763]
tggttttagttagtccgtagcacacgacacttgactgtcgtagggtt
tggttcaaatccagacagaccagcca
1-8tRNA-Pro(tgg)[58857,58933]
cgggacgtagcacagcttgtagtgcgctcgcttgggagcgagaggctc
agtgttcgaatcactccgtcccgacca
1-9tRNA-Ile(gat)[58940,59013]
gttttcgtagttcaatggtagaaccacgactgataatcgtgagacaaa
gttcgattcttgcgaaacaacca
1-10tRNA-Met(cat)[59092,59170]
agcgggatataggagctcgtgctcctcgccagttcatatgctggagat
cattggttcaaatccaattcccgcctcca

>KX879627.1 Campylobacter phage vB_CjeM_Los1, complete genome

1-1tRNA-Tyr(gta)c[38402,38487]
gtaagcatatgggtaattggtaaccaccagactgtaaactcggcgctctt
ttggcattgatggttcaaatccatcctcctacacca
1-2tRNA-Arg(tct)c[38498,38574]
ctccatgtagctcagctggatagagcaagaatcttctaagttctaggtcg
ggtgttcaaatcactccatggaggcca
1-3tRNA-Asn(gtt)c[38584,38658]
tgcggattagcacagtggtagtgcaatcgactgtaatcgatgggtcata
ggttcgaatcctatatccgcagcca
1-4tRNA-Met(cat)c[38752,38826]
ggcgagtagctcaatggtagagcaaccggctcataaccggttggtata
ggttcgattcctatttcgcccacca

>KY652726.1 Klebsiella phage vB_KpnM_BIS47, complete genome

1-1tRNA-Met(cat)c[42726,42801]
tgcgggttagaactcaggagttcatcggtctcataagccgaacgaagag
cagttcgagtctgctacccgcatcca
1-2tRNA-Phe(gaa)c[43296,43370]
gcagagatagctgagacgattagcgcttgcctgaagagcttgagaggaa
ggttcgataccttctctcgcacca
1-3tRNA-Leu(tag)c[43377,43462]
gggcaagtggcgggaattggtagacgcactggatttaggttcagcgcct
tgcggtgtgagagttcgagtctccttgcgccacca
1-4tRNA-Arg(acg)c[43710,43782]
gtgggtgtcctgacggacaggcaacggctcagaagccgtttgatgtagg
ttcagtccttccatccacacca
1-5tRNA-Pro(tgg)c[43842,43918]
ctctcttagctcagtttggtagacatctgcttgggagcagagggtcg
catgttcaagtcgtgaaggagacca

1-6tRNA-Asp(gtc)c[44060,44135]
ggggatatggtattagcggcaacatactggcctgtcacgccggagtcac
gggttcgaatcccgttatcctcgcca
1-7tRNA-Asn(gtt)c[44143,44217]
ggattggtagctcagaggcagagcgctcgcctgttaagcgaggggtcggg
atttcgaaactccccctttccgcca
1-8tRNA-Lys(ttt)c[44278,44353]
gggtaggtagccgagcggtcaggcattcgccttttaagcgaagagacgat
gggttcaaatccctcccttcccacca
1-9tRNA-Ser(tga)c[44362,44450]
ggagagcaggctgcaaggtgcagacaccggttgaacccgggtcccaccgt
agcgatacggtagacgtccgattctgttctcttcca
1-10tRNA-Ile(gat)c[44805,44880]
gctctgatagttcagttggttagaacaggcgaccgataatcgccaaacac
tggttcgagtcagttcggagtacca
1-11tRNA-Ser(gct)c[44887,44972]
ggaagattggtgaaatggtagccacagcggttgctaaaccgcatccga
aagggtgtgcaagttcaaccctgcatcttccgcca
1-12tRNA-Ser(gga)c[45134,45224]
ggtggaatggtcgagaggttaagacagcaccttggaagggttaggcc
ccaaaaggggtccgtaggttcgaatcctacttccaccgcca
1-13tRNA-Gln(ttg)c[45419,45494]
aggagatggtgtaattggttagcacacgggtcttgaaatccgtagttc
aggttcaagtcctgatctccctgcca
1-14tRNA-Glu(ttc)c[45847,45922]
gctcctatcggctaaatggacaggccgtcagacttcaatctggaaatcc
gagttcgatcctcgggtgggagtacca
1-15tRNA-Gly(tcc)c[46005,46081]
gcgttattagtgtagcgtccagcactccgtcctccaagtgcgaagca
tcggttcgaatccgatataacgtcca
1-16tRNA-Ile(gat)c[46172,46247]
gggagtatagctcagtcagtagagcgctcgaccgataatcgagagtcgc
aggagcaaagcctgctactcccacca
1-17tRNA-Tyr(gta)c[46254,46337]
ggctcgttggcagaatggttattgcagcggattgtaaatccgtgcccttc
ggggtcctggttcgagtcagggtgggccacca
1-18tRNA-Cys(gca)c[46776,46849]
gcacggttgctggagtggaacagcttcggctgcaaaccgaatgtcaggt
gttcgattcacctaccgtgctcca
1-19tRNA-Leu(taa)c[47055,47132]
tgcgtccttggtccaatctggcagaggcatgggtgttaagctcccagggt
tcccggttcgagtcgggaggcgcatc
1-21tRNA-Thr(tgt)c[47490,47565]
gctcgtatagctcagttggtagagcaactccctgttaaggagaaggtcgt

gggttcaagtcctactgcgagcacca
1-22tRNA-Lys(ctt)c[49792,49867]
ggggattaacacagcggtagtagcgcccccctaagccgaaggtcga
aggttcgaatccttcacccccacca
1-23tRNA-Met(cat)c[50333,50410]
ggccctcaagctcattaggtatgagcaatcgactcataatcgagaggtag
gcaggttcgaatcctccggggccacca
1-24tRNA-Met(cat)c[50414,50486]
cggtcagtagctcagttggtagagcaggttcttcatacggacaaggtcag
tggttcaattccactctgaacga

>KY000003.1 Salmonella phage STP07, complete genome

1-1tRNA-Met(cat)[3339,3413]
ggtcctgtagctcagtggttagagcagccccctcataagggttggtcgct
ggttcaagtcagccagggtcacca
1-2tRNA-Asn(gtt)[3826,3901]
gacgatgtagttcagtcggtagaacggcggctgttaaatcgatgtcgc
aggttcaagtcctgccatcgtcgcca
1-3tRNA-Ser(act)[4569,4657]
ggaaggtgcccagaggtttaagggactcgactactaatcgagtggggc
tttagcccccgaaggttcgaatccttcacctccacca

>KX961632.1 Bacillus phage SBP8a, complete genome

1-1tRNA-Asn(gtt)[32688,32761]
gtgctttagctcagtcggttagagctggtaggtgttaaccactgtgtcgt
aggttcgattcctacctagcacgc
1-2tRNA-Glu(ttc)[32768,32844]
gtcgcatgggtgaaattggttaacacactcggtttctaccgaggattta
ggggttcgagccccctatgcgattcca
1-3tRNA-Asp(gtc)[32849,32922]
tggggatataggttagaggtaaacacgcacggctgtctaccgtgaagcac
gagttcgaatctcgttatcctcgt

>KX961629.1 Bacillus phage BJ4, complete genome

1-1tRNA-Asn(gtt)[32254,32327]
gtgctttagctcagtcggttagagctggtaggtgttaaccactgtgtcgt
aggttcgattcctacctagcacgc
1-2tRNA-Glu(ttc)[32334,32410]
gtcgcatgggtgaaattggttaacacactcggtttctaccgaggattta
ggggttcgagccccctatgcgattcca
1-3tRNA-Asp(gtc)[32415,32488]
tggggatataggttagaggtaaacacgcacggctgtctaccgtgaagcac
gagttcgaatctcgttatcctcgt

>KX961630.1 Bacillus phage QCM8, complete genome

1-1tRNA-Cys(gca)[26999,27071]
gaggatgtaccgaagcggctaacggcttagactgcaaatctagtgttcac
gggttcgagtcctcattctct

1-2tRNA-Asn(gtt)[27086,27161]
gtgcctgtagctcagtcggtagagcaaacctgttaagggtgaggtcgt
aggttcgagccctaccaggtacgccca
1-3tRNA-Gly(tcc)[27354,27429]
ggggcattagtatattggttcattattcctggctccaaccaggggaggt
cggttcgactccgacatgtccctcca
1-4tRNA-Asp(gtc)[27434,27506]
tggggtattagtttagtggtaaaatactgcactgtctatgcagagtcagg
ggttcgactcccctataacctcgt
1-5tRNA-Glu(ttc)[27623,27698]
tgtcccggttggtgaaattggctaacacactcggctttctaccgagcattc
gcaggttcgaatcctgtacgggatat
1-6tRNA-Gln(ttg)[27822,27894]
tttcggagtagccaagtggtaaggcaatagactttgactctatgatcgggt
ggttcgataccatcctccgaagt
1-7tRNA-His(gtg)[28051,28123]
cagggtgtggtgaagtggtaaacacgggcgattgtggctcgtccattcga
gggttcgaltccctcctccctga
1-8tRNA-Pro(tgg)[28131,28203]
gtgggtgtaggctagaggtcagtcactgcgttgggacgcaggatacgca
cggttcgaatcgtgccaccgcac
1-9tRNA-Phe(gaa)[28308,28380]
ggacggatagctgagatggattagcgaaggattgaaaccccttagaggtt
ggatcgttaccactctgtccac
1-10tRNA-Tyr(gta)[28506,28588]
gggtcagtcgcatagtggaattgcaggagactgtaaatctccccgaaa
ggttcgttggttcgagtcgaacctgaccacca
1-11tRNA-Leu(tag)[28594,28679]
tgccgaagtgggtgaattggtatacacgcagcacttaggatgctgtgccc
tagaggattgaggggttcgacccctccttcggtatc
1-12tRNA-Trp(cca)[28717,28789]
tgggggtttagtttagtggtaaaatttggctccaacaccaaagtccaa
ggttcgaatccttgcgcctcgt
1-13tRNA-Met(cat)[28796,28868]
aggagcatagctcagtggtagtagcgggtgtctacacgcaccaggtcga
aggttcgaatccttctgttccta

>KY630163.1 Salmonella phage S8, complete genome

1-1tRNA-Ser(gct)c[97599,97687]
ggaaggttccccgagaggtttaagggactcgactgtaatcgagtggggc
tttagccccgaaggttcgaatccttcacctccgcca
1-2tRNA-Tyr(gta)c[97764,97847]
gtgagtgtggcagagcggtcgaatgcaggagactgtaaatctccccgtaa
cagcgcggtggttcaatccatccactcacacca
1-3tRNA-Asn(gtt)c[98605,98680]

gacgatgtagttcagtcggtagaacggcggctgttaaactgtatgtcgc
aggttcaagtcctgtcatcgtcgcca
1-4tRNA-Met(cat)c[99093,99168]
ggccccgtagctcagtggttagagcagtcgactcataatcgattggtcgc
tggttcaagtcagccagggtcacca

>KX831080.1 Mycobacterium phage Lukilu, complete genome

1-1tRNA-Ser(gct)[30369,30452]
ggagggtgagcatcaggtgatgcagcgagattgctaataccgtacggttaa
ccaccccgtaggttcgaatcctcctccctccgc
1-2tRNA-Leu(cag)[30645,30730]
gcctcggtagcgtaatggaagccgtgctgcactcagactgcagtgccga
aaggcgtaggggttcgactccctcccagggtacca
1-3tRNA-Leu(gag)[30732,30805]
gcccctgtatcccaacggcagaggaagcggctctgagaggccgttcagtga
gggttcgaatccctctgggggcac
1-4tRNA-Leu(caa)[30806,30880]
gccgcagtatgcaaaccggaagcagccgtactcaaatgcggtgcgtg
cgggttcgatccccgcctgcggtac
1-5tRNA-SeC(tca)[68732,68828]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaatcgaccggaacatcccggtcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[92494,92568]
cggggtgtagttcagtttgaagagcgttggtttgggaccaagatgtcg
caggttcgaatcctgtcaccccgac
1-7tRNA-Trp(cca)[92583,92653]
gggtctgtgcacagggtgcccgcaggtctcaaagccgaaggcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Tyr(gta)[92655,92741]
cccgatcatgcccactggtgttgggagcaggctgtaaccctgtggcct
tcgggacggtaggttcgattcctcagtcggggacca
1-9tRNA-Pyl(cta)[93855,93927]
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gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[94077,94151]
agcgggtgtagagcagctaggtagctcgccgggtcataaccggaggacg
cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[94278,94349]
gcgccttggcggaatggctacgtgctcggtgcaacccgagttatcccg
gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[94354,94428]
ggtccgttgagtagatggatatctgccaccctctcaaggtggagatca
cgggttcaagtcctgacggactgc
1-13tRNA-His(gtg)[94430,94503]
gtggccgtagttcagccggtagaacgtgggttgtatccagtcgtcga

gggttcgagtcctccggtcacc
1-14tRNA-Ala(tgc)[94665,94739]
gggcctgtagctccaattgtagagcagcatccttgaagatgacggctg
tcggttcgaatccgacctggtccac
1-15tRNA-Phe(gaa)[94929,95001]
gccgtcatagctcagttgtagagcactggcctgaaaaccagtgccga
ggttcgattcctcgtcggcac
1-16tRNA-Val(cac)[95007,95080]
gtccgttagctcagctggaagagcgctcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[95200,95273]
gccttcgtagctcagttgtagagctctgcctttaagcgagatgtcgc
aggttcgacccctgccggaggcac
1-18tRNA-Glu(ttc)[95278,95354]
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cgcggttcaattcccgtccgatcgc
1-19tRNA-Gly(tcc)[95434,95506]
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1-20tRNA-Thr(cgt)[95566,95640]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cggttcgagtcggacagcagcccc
1-21tRNA-Thr(tgt)[95641,95713]
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1-22tRNA-Thr(ggt)[95773,95845]
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1-23tRNA-Gly(gcc)[97168,97241]
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gggatcgtaacccgttcttcgctc
1-24tRNA-Asp(gtc)[97245,97317]
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gtatcgtaatccgtcagggtcgc
1-25tRNA-Met(cat)[97377,97449]
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ggttcgattccagggtgaggtac
1-26tRNA-Ile(gat)[97455,97529]
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ggtgttcgattcaccgagcaggtac
1-27tRNA-Arg(acg)[97623,97695]
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tgttcgattcgcgctaggggcac
1-28tRNA-Val(gac)[97738,97810]

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1-29tRNA-Arg(cct)[97984,98057]
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1-31tRNA-Gln(ttg)[98598,98673]
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gcaggttcgagtcctgctaccccatc
1-32tRNA-Arg(tct)[98677,98752]
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gagttcgaatcctcaggggcacca
1-33tRNA-Gln(ctg)[126638,126712]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
ggttcgaatcctaagcgagcagcca
1-34tRNA-Asn(gtt)[126719,126794]
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>KX828711.1 Shigella phage SH7, complete genome

1-1tRNA-Arg(tct)c[67336,67411]
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aggttcgatccctactgcctcgacca
1-2tRNA-His(gtg)c[67416,67491]
gtggccgtagttcagttggtagaactcgagattgtgattctcgtagtcac
gggttcgactcccatcggtcacccca
1-3tRNA-Asn(gtt)c[67606,67680]
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ggttcgaatcctatcacgtccgcca
1-4tRNA-Tyr(gta)c[67685,67771]
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tgcgactcgggtggttcgactccatcactccccacca
1-5tRNA-Met(cat)c[67785,67859]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggttcaattccactagggccacca
1-6tRNA-Thr(tgt)c[67861,67936]
gctgatttagctcagtaggtagagcaactcactgtaatgagaaggtcgg
cggttcgattccgtcaatcagcacca
1-7tRNA-Ser(tga)c[67942,68031]
ggaggcgtggcagagtggttaatgcaccggtcttgaaccggcagtcg
ctccggcgactcataggttcaaatcctattgcctccgcca
1-8tRNA-Pro(tgg)c[68033,68107]
ctccgtgtagctcagtttgtagagcgctgattgggatcaggaggtcc
aaggttcaaatccttgatggagac
1-9tRNA-Gly(tcc)c[68118,68191]
gcggatatgtataatggcattacctcagacttccaatctgatgatgtga

gttcgatttcattatccgtcca
1-10tRNA-Leu(taa)c[68197,68283]
gcgagaatggtcaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgggttcgagtccttctcgacca
1-11tRNA-Gln(ttg)c[68284,68357]
tgggaattagccaagttggaaggcactggattttgattccaggatgcaa
aggttcgagtcctttattcccagc

>KY000079.1 Acinetobacter phage AM24, complete genome

1-1tRNA-Tyr(gta)[23966,24047]
tagtagtgcccgagtggtcgaaggggtggactgtaaattcattatc
acacgttgggtcgaatccaacctgctacacca
1-2tRNA-Ile(gat)[24492,24566]
agtaccttagttcagtggtagaacgcagaactgataattctgaggtcgat
ggttcgaaacctcaggtactacca
1-3tRNA-Asn(gtt)[24708,24781]
tctagtgtagcacaaaggtagtgagcagattgtaaatctgttggtgtt
ggttcgaatccagcctctagagcc
1-4tRNA-Asp(gtc)[25572,25647]
ggctctgtagcatagtgattatgcgactccctgtctaggagaaaaacgc
cagttcgagtcgtcagagtcgcca
1-5tRNA-Gln(ttg)[25652,25726]
tgtcgtatggtgtaatggtagcacagaagactttgactcttctagtta
ggttcgagtcctaattcgactgcca
1-6tRNA-Ala(tgc)[25730,25801]
gggtcactagcacaaatggtagtgagttgcttgcagcatcaggttaag
ggttcgagtccttgtgtatcc
1-7tRNA-Glu(ttc)[25808,25882]
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ggttcaaatccgttaggaatacca
1-8tRNA-Lys(ttt)[25885,25961]
aggacgttagctcagttggttagagcaagagcctttaagttcaggtca
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1-9tRNA-Phe(gaa)[26316,26390]
gcacaagtagcttagatggattagcgtaacctgaaaaggttgagaggtt
ggatcgttaccacattgtgcacca
1-10tRNA-Val(tac)[26601,26676]
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aggttcgaaacctacaggaatacca
1-11tRNA-Ser(tga)[26680,26770]
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gtgtaatagccgtgtgagttcgagtcactttctccgcca
1-12tRNA-Gly(tcc)[26772,26845]
gcgtctatagttagtggaacaccctgtactccaattcagtatcttcg
gttcgaatccgaatggacgtcca

1-13tRNA-Pro(tgg)[27000,27076]
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 taagttcaattcttactacagagacca
 1-14tRNA-Leu(tag)[27083,27159]
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 tgagttcgagttcagactacctacca
 1-15tRNA-Leu(taa)[27166,27241]
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 cagttcgagttcgaatacctacca
 1-16tRNA-Thr(tgt)[28132,28206]
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 tgttcgactcacatattcggaacca
 1-17tRNA-Met(cat)[28212,28287]
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 tttggttcgattccaaaaggaccac
 1-18tRNA-Met(cat)[28463,28537]
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 ggttcgaatcccaacttcgctcca
 >KY000080.1 Klebsiella phage KPV15, complete genome
 1-1tRNA-Thr(tgt)c[77431,77506]
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 ggttcgactcctgcaatcggcacca
 1-2tRNA-Leu(taa)c[77607,77691]
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 aaggattgaggggtcgaatccctctcgtgcacca
 1-3tRNA-Arg(tct)c[77696,77772]
 cgggcatagctcagttgtagagcagcggacttctaataccgcaggtcg
 aaggttcgaatcctctgcctcgacca
 1-4tRNA-Met(cat)c[79153,79229]
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 atgttcgagctttgccagggtcacca
 1-5tRNA-Pro(tgg)c[80497,80573]
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 aatgttcgagtcattctatggagacca
 1-6tRNA-Gly(tcc)c[80579,80653]
 gcatccatcgatatgcgatattatgtctggctccaccagaagatagg
 agttcgattctcttggatgctcca
 1-7tRNA-Trp(cca)c[80659,80733]
 aggttcttagtataacggctattatgctgggtccaaaccagtgatgag
 ggttcgattccttcagggcctgcca
 1-8tRNA-Ile(gat)c[80740,80815]
 gggagtatagctcatttggtagagctctcgaccgataatcgagcggtagc
 tgggtcgagtcagttactcccacca
 1-9tRNA-Ser(tga)c[80882,80966]

ggagagtagcgctagtggtagcaaaccggacttgaaatccgggccatcgg
aaacggtaggggttcaactccttactctccgcca
1-10tRNA-His(gtg)c[81064,81139]
gtggccgtagttcagttggtagaactcgagattgtgattctcgtagtc
gggttcaactcccatcggtcacccca
1-11tRNA-Gln(ttg)c[81235,81309]
tgaatcatagccaagttggaaggcagtaggtttgatcctacgatccct
ggttcgagtcagggtggttcagcca
1-12tRNA-Met(cat)c[81316,81392]
tgccgggtaactcagttggtagaatgtgggctcatatcccacacgcg
caggttcgagtcctgcctccgcctcca
1-13tRNA-Asp(gtc)c[81554,81629]
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ggattcgaattccgttaggtccgcca
1-14tRNA-Asn(gtt)c[81883,81967]
gggtcgttggtgagagggtgaagcgacggactgtaatccgtgcagaaa
tgactaggcaggttcgatacctgcacggccccgcca
1-15tRNA-Lys(ttt)c[81973,82049]
gggatactagctcagttggttagagcaccggacttttaacccgggtgtcc
gaagttcgagtcctcgggtgtccacca
1-16tRNA-Tyr(gta)c[82056,82142]
ggggagttagaccgtaggggtagcgggacagactgtaaatctgtgctca
aaaggctcgagtggttcgactccattactccccacca

>KY000083.1 Pseudomonas phage PA10, complete genome

1-1tRNA-Gln(ttg)[67563,67636]
tgccgcttcgttcaatggtaggacgccagactttgaatctggagatgatg
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1-2tRNA-Arg(tct)[67942,68017]
gctcgtatagttaatggatagcacaacggcttcttaagccgtaaggtct
aggttcgaatcctagtatgagcgcca
1-3tRNA-Lys(ttt)[68028,68103]
tggacggaagctaaagtggatagcgcggcttttaacccgactatagt
gagttcgagtcacccgttcaacca
1-4tRNA-Leu(tag)[68366,68450]
ggccctgtggtggaattggtatacacatcagtcctagaaactgacgccga
gaggattgagggttcaagtcctccggggccacca
1-5tRNA-Ile(gat)[68661,68736]
ggccagatagctcaattggttagagcaccgaccgataatcgggtggttga
aggttcaagtccttcttgccacca
1-6tRNA-Asp(gtc)[68746,68824]
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cgtcgggtcgaatccgacatgggtcgcca
1-7tRNA-Met(cat)[68925,68999]
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ggttcgattccacctctcgcttcca
1-8tRNA-Cys(gca)[69234,69309]
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cggttcaaatccgatacgcggctcca
1-9tRNA-Asn(gtt)[69320,69395]
tgggatgtagctcagttggttagagcaggagctgtaactctcaggtcgc
aggttcgagccctgccgtcccagcca
1-10tRNA-Pro(tgg)[69459,69536]
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gaaggttcaaatcctccgggtgacca
1-11tRNA-Gly(tcc)[69543,69618]
gcgggtatagctcagttggttagagcgtctgcctccaagcagttcgtcgt
cggttcgagtcgctctatccgctcca
1-12tRNA-Phe(gaa)[69625,69701]
gggactgtagctcagaaggttagagcggtaggtgaaatcccacaggtcg
ggcggttcgattcgccccgggtcccacca
1-13tRNA-Glu(ttc)[69708,69783]
gcagttatagattaattgggtaaatcgccagactttcaatctggtgtcc
gggttcgatccccggttaactgctcca
1-14tRNA-Thr(tgt)[70105,70179]
gccctttaagcatttatggtgatgcaccggttgaacccggcgaattc
tgtcaagtcaggaatggggcacca

>KY073228.1 Pseudomonas phage Zigelbrucke, complete genome

1-1tRNA-Gln(ttg)[21733,21806]
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gttcgatcccatcagcggctgcca
1-2tRNA-Arg(tct)[22112,22186]
gctcgtatagttaattggatgcacaacggccttctaagccgtaaggtcta
ggttcgagtcctagtagcagcgcca
1-3tRNA-Lys(ttt)[22196,22271]
tggacggaagctaaagtggataggcatctggcctttaaccagactatagt
gagttcgagtctcaccgtccaacca
1-4tRNA-Leu(tag)[22546,22630]
ggcctgtggtggaattggtatacacatcagtccttagaaactgacgccga
gaggattgagggtcaagtcctccggggccacca
1-5tRNA-Ile(gat)[22839,22914]
agccgगतagctcaattggtagagcaccgaccgataatcggtggtga
aggttcaagtccttctctggctacca
1-6tRNA-Asp(gtc)[22924,23002]
ggccattagctcagctcggactagagcaagcccctgtctagggaaggt
cgccggttcgaatccggcatgggtcgcca
1-7tRNA-Met(cat)[23103,23177]
agcgftaagactggctggagctgtcactcggctcataaccgagcacaagt
ggttcgattccacctctcgctacca

1-8tRNA-Cys(gca)[23457,23532]
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 cggttcaaatccgatacgcggctcca
 1-9tRNA-Asn(gtt)[23543,23618]
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 aggttcgagccctgccgtcccagcca
 1-10tRNA-Pro(tgg)[23682,23759]
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 gaaggttcaaatccttcggggtgacca
 1-11tRNA-Gly(tcc)[23766,23841]
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 cggttcgagtcctctatccgctcca
 1-12tRNA-Phe(gaa)[23848,23924]
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 ggcgttcgattcggccgggtcccacca
 1-13tRNA-Glu(ttc)[23931,24006]
 gcagttatagattaattggttaaatgccagactttcaatctggtgttcc
 gggttcgalccccggtaactgctcca
 1-14tRNA-His(gtg)[24067,24141]
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 ggggttcgagtcggcctccaacc
 1-15tRNA-Thr(tgt)[24328,24402]
 gccctttaagcatttatggtgatgcaccggcttgaacccggcgaattc
 tgttcaagtcaggaatggggcacca

>AP017925.1 Ralstonia phage RP31 DNA, complete genome

1-1tRNA-Asn(gtt)[128734,128809]
 tccgaggtagctcagtcggtagagcagcggcctgtaagccgttggtcgc
 tggttcgaaccagcccttgagcca
 1-2tRNA-Ser(aga)[267002,267096]
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 cagcaaggaacttatccttgatctggttcagcccatagttgacct

>KY549443.1 Enterococcus phage EFP01, complete genome

1-1tRNA-Arg(tcg)[105868,105941]
 ttgttaggtcgtctaacaggtgaagacacaattctcgaaattgtgatac
 aggttcgaaccctgtcctgacagt
 1-2tRNA-Trp(cca)[107475,107548]
 tgcgctgttggtgtagtggtatcattccggctccaacccggaagacgg
 gggttcgaatccttcacggcgtgt
 1-3tRNA-Thr(tgt)[107690,107763]
 gctgatattccgtaattggtaacgggacacacttgtaatgtgtatactt
 taggttcgagtcctagatcagca
 1-4tRNA-Lys(ctt)[107955,108030]
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 acaggttcgaatcctgtaggggat

1-5tRNA-Lys(ttt)[108163,108239]
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 cggggttcaaaccctgtggggacatc
 1-6tRNA-Arg(acg)[108338,108410]
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 aggttcgaltcctctgctgtcgg
 1-7tRNA-Ser(gga)[112142,112228]
 ggaaggttactcaaacggtaaaggcttggttggaaccaagtagatgt
 gtaacagcatgtgtgggtcgaatcccatgccttcca
 >KY363465.1 Providencia phage vB_PreS_PR1, complete genome
 1-1tRNA-Met(cat)c[28385,28460]
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 tggttcgattccagctagaacctcca
 1-2tRNA-Gln(ttg)c[28588,28663]
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 1-3tRNA-Met(cat)c[28670,28752]
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 ccaagatcggttcgattccggtactcgcaacca
 1-4tRNA-Ser(tga)c[29978,30066]
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 1-5tRNA-Trp(cca)c[30927,31000]
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 gttcgattcctccagcccgtgcca
 1-6tRNA-Ser(gga)c[31761,31849]
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 cgatatgccttgtgggttcgactcccacttcttctgcca
 1-7tRNA-Leu(tag)c[31859,31935]
 gggactatgacggaactggcatagctgtgtgcttagaacgcagatttta
 ggagttcgactctccttagtcccacca
 1-8tRNA-Leu(taa)c[32072,32148]
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 1-9tRNA-Gly(tcc)c[33985,34060]
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 ggggttcgagtcacctcgcccgcgcca
 1-10tRNA-Asn(gtt)c[35038,35122]
 ggggtggttagctgagtggttagcgacggactgttaatccgtgttcgaaa
 ggacaacgtaggttcaaactctacaccgcccgcga
 1-11tRNA-Ile(gat)c[35129,35205]
 actgcgatagctcagttggtagacgcttgactgataatcgagaggttcc
 ctggttcaaaccaggtcgcagtacca
 1-12tRNA-Glu(ttc)c[35508,35585]

actgtagtggacaaactggtaaagtcaccaccctttcaagtgaggcatt
gagggttcgactcccttctacagtcca
1-13tRNA-Tyr(gta)c[35666,35750]
gcaggattagtctagcggcaatgacaggagactgtaaatttcacccctc
ggggttccgtggttcgagtcacgatcctgcacca
1-14tRNA-Arg(acg)c[35840,35915]
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aggttcgaatcctgtagtgtgctcca
1-15tRNA-Thr(tgt)c[36098,36173]
gttgacgtagctcagttggtagagcagttgccttgtaagcatcaggtcgc
aggttcgatgcctgtcgtcagcacca
1-16tRNA-Val(tac)c[36179,36252]
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gttcgattcctccagcagtagca
1-17tRNA-His(gtg)c[36478,36555]
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gcgggttcaagtcctccgtcacccca
1-18tRNA-Phe(gaa)c[36696,36770]
gcaccgttagctgagatggattagcgcaggttgaagagcctgatagagt
ggttcgataccactatggtgcacca
1-19tRNA-Asp(gtc)c[36776,36852]
aggtatgaggtcgaaatggacaagacaccgcactgtcactcggagatag
cgggttcgatccccgtcatacctgcca
1-20tRNA-Ala(tgc)c[36859,36934]
ggggatgtagctcaattggtagagcacctgcttgcaagcagacggttag
gggttcaaatccccttttctccacca
1-21tRNA-Pro(tgg)c[36942,37018]
ctcggattagctcagtcgtgtagagtacgccgttggggcggtggggtca
aaggttcaaatcctttattcgagacca
1-22tRNA-Ser(gct)c[37477,37570]
ggaagagtaaccctaattggaagggaactgttgctaaacagtttagtagc
tgtcgaaaagacggtgtgcgggttcgagccccgcttcttctcca
1-23tRNA-Lys(ttt)c[38288,38363]
gcgtcgttagctcaattggcagagcaagggttttaatcccaggttgt
aggttcgactcctatacggcgtacca
1-24tRNA-Met(cat)c[40456,40531]
gcaccagtagcttaattggtagagcgtgcccctcataagggttggtgtg
ggttcgagtcctcctaggtgcacca
1-25tRNA-Arg(tct)c[41390,41464]
gtccccttagtctagaggatagcatcggcttctaaaccgatatacata
ggttcgaatcctataggggacgcca

>KT995480.1 Bacillus phage BM15, complete genome

1-1tRNA-Ser(gct)[29057,29145]
ggaagggtactcaagttggtgaagaggtcagtttgctaaactgatagtac

ctattacaggtagcaagggttcgaacccctttcctcca
1-2tRNA-Cys(gca)[29156,29229]
gagggtgtaccgaagcggctcaacggcacagattgcaaccctgtgttcg
tgggttcaaatcccaccatcctct
1-3tRNA-Asn(gtt)[29275,29350]
gtgctttagctcagtcggtagagctggaggctgtaaccactgtgtcgt
tggtcgattccaacctagcacgcca
1-4tRNA-Gly(tcc)[29354,29428]
ggggcattggtatattggctattactcttggctccaaccaagcaaggtc
ggttcgactccgacatgtccctcca
1-5tRNA-Thr(tgt)[29435,29511]
gccttcttagctcagttggttagagcgactgccttgaagcagtaggtcg
tgggttcgaatcctacagtcggcacca
1-6tRNA-Asp(gtc)[29517,29590]
ggctcgttagtttaacggtaaaatactgcactgtctatgcagggtcacgg
gttcaactcccgtacgggtcgcca
1-7tRNA-Glu(ttc)[29599,29675]
tgtcgattggtgaaattggctaacacactcggctttctaccgagcattc
aggggttcgaatcccctatgcgatc
1-8tRNA-Arg(tct)[29769,29844]
taccctttagccaagtgactaaggcatcgggcttctatcccgtagatc
gtgggttcgattcctacaggggtgt
1-9tRNA-Ser(tga)[29850,29935]
cgggaataactcaaatggttaagagggtagtcttgaaaactactaggcgt
gaaagcgtgcgggggttcgaatccctcttctcgcgc
1-10tRNA-Gln(ttg)[30015,30090]
tttcggtgtggacaaactggtaaagtcgtcaggctttgaccctgaagttt
ggaggttcgacccttccaccgaagt
1-11tRNA-His(gtg)[30168,30241]
cagtggtgtgaagtggcttaacacggacgactgtggatcgttcattcg
caggttcgaatcctgtcatgctga
1-12tRNA-Pro(tgg)[30339,30410]
gtagatgtaggctagaggtcagtcactccgttggggcggaggtcacgca
ggttcgatccctccatctgca
1-13tRNA-Phe(gaa)[30513,30587]
ggacagatagctgagacggattagcgattggctgaaaaccaatagaggtt
ggatcgttaccactctgtccacca
1-14tRNA-Tyr(gta)[30594,30676]
gggcgtgcaatcattggagagataagctgactgtaaatcagtggtcattg
actgtgaagggtcgaatccttccattccacca
1-15tRNA-Leu(taa)[30678,30764]
atcggaatgttggaattggtagacataacggactaaaaatccgttgcctc
ttggggcgtgagggttcgagtcctcttccgatacca
1-16tRNA-Ile(gat)[30766,30840]

actagtgtagctcagaggtagagcagtgctcttgataaggcattggtcgtt
ggttcgatcccaaccactagtagca
1-17tRNA-Leu(tag)[30850,30934]
gtcagagtgttggaactggatatacatgcggcacttagaatgccgtgcctt
cgggattgtgggttcgactcccacctctgacacca
1-18tRNA-Met(cat)[31029,31103]
tacgggtatagctcagtggttagagtggtggtctcataagcccaaggcga
tggttcaatcccatctaaccgtatc

>KY290975.2 Escherichia phage YUEEL01, complete genome

1-1tRNA-Arg(tct)c[68828,68903]
cggggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-His(gtg)c[68908,68983]
gtggccgtagttcagttggtagaactcgagattgtgattctcgtagtc
gggttcgactcccatcggtcacccca
1-3tRNA-Asn(gtt)c[69098,69172]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattggtata
ggttcgaatcctatcacgtccgcca
1-4tRNA-Tyr(gta)c[69177,69263]
ggggagtatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccaccactccccacca
1-5tRNA-Met(cat)c[69273,69347]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggttcaattccaccaggccacca
1-6tRNA-Thr(tgt)c[69349,69424]
gctgatttagctcagtaggtagagcaactcacttgtaatgagaaggcgg
cgggtcgattccgtcaatcagcacca
1-7tRNA-Ser(tga)c[69430,69519]
ggaggcgtggcagagtggtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca
1-8tRNA-Pro(tgg)c[69521,69595]
ctccgtgtagctcagtttgtagagcgtctgcttgggagcagaatgtcg
taggttcaaatcctgccacggagac
1-9tRNA-Gly(tcc)c[69606,69679]
gcggatatcgataatggtattacctcagacttccaatctgatgatga
gttcgattctcattatccgtcca
1-10tRNA-Leu(taa)c[69685,69771]
gcgagaatggccaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttggtggttcgagtcacttctgcacca
1-11tRNA-Gln(ttg)c[69772,69845]
tgggaattagccaagttggttaaggcactggattttgattccaggatgcaa
agggtcgagtcctttattccagc

>KY290955.1 Aeromonas phage 65.2, complete genome

1-1tRNA-Leu(taa)[107939,108023]

gcttgtgtggtggaactggtatacacattagacttaaaatctaacgcctt
cgggattgggggttcgaatccccccacaagcacca
1-2tRNA-Arg(tct)[112185,112261]
gcgctgttagctcagttggatagagcaacgttcttctaaagcgtgggtcg
ctggttcgaatccagcacggcgcacca
1-3tRNA-Leu(tag)[112268,112351]
ggggatgtggtgaaattggcagacacaccagattaggttctggcgctta
tagcgtgacggttcgagtcggtccatccccacca
1-4tRNA-Gly(tcc)[112459,112534]
gcgggtgtagctcagttggtagagcttctgattccaatcagaatgtcgc
gtgttcgagtcacgttaccgcgtcca
1-6tRNA-Met(cat)[112623,112699]
ggccccatagctcagttggttagagcgtccgactcataatcgggtggtca
ctggttcgagtcagttggggccacca
1-7tRNA-Met(cat)[113158,113233]
tgcgagttggagaagtggtcatctcgacaggctcattacctgtaggtcgg
ttgttcgaatcaaccactcgcaacca
1-8tRNA-Asn(gtt)[113240,113315]
gggcgtgtagttccagcggtagaacgatggactgttaatccatgtgtcgg
gggttcgaatccctccacgcccgccca
1-9tRNA-Ser(tga)[113445,113538]
ggaaggtcaacccgacggtaggcgacgggagcggcttgaaaaccgccga
gcgttaacagcgcttgtgagttcgatcctcacatcttcgccca
1-10tRNA-Lys(ttt)[113548,113623]
gcatcgttagctcagcaggtagagcatgggacttttaatctcagggtcgc
tggttcgaatccagcacgatgtacca
1-11tRNA-Tyr(gta)[113630,113713]
ggatgcataggcaaatggttaagccagcggctgtgaaaaccgtagccttc
gggcttcttgggtcgaatccaagtgtatccacca
1-12tRNA-Trp(cca)[113720,113794]
aggtctatggtgtagtggtaacatgccgattccaaatccgtgcgtctgg
ggttcaagtcctcatgggcctgccca
1-13tRNA-Ala(tgc)[113800,113876]
gggggattagctcagttggaatgagcgactggtttgaaccagtaggtca
tcggttcgaccccataatcctccacca
1-14tRNA-Pro(tgg)[114320,114397]
ccgtgtgtaggctaggcaggtcaagtcgtctggttgggaccagaagatc
gaaggttcgaatcctccacacggacca
1-15tRNA-Thr(tgt)[114970,115045]
gccgaattagctcatctggtagagcacagccttgaacgctgggggtggt
ccgttcgagtcggacattcggcacca
1-16tRNA-Ile(gat)[115058,115133]
agtggattagctcagtaggtagagcactcgaccgataatcgagagcgc
tggttcaacccaataatccactacca

1-17tRNA-Ser(gct)[115140,115227]
ggagaagtggtgagcggcttaaatcgctcccctgctaaggagtaaacc
ggaaggtttcgagagttcgaatctctccttctccgccca
1-18tRNA-Asp(gtc)[115235,115310]
gaggatgtagtatagtggtcaatatccctgcctgtcacgtaggagatcgc
gggttcgagtcctcgtcacctcgcca

>KY290951.1 Aeromonas phage 31.2, complete genome

1-1tRNA-Arg(tct)c[65027,65103]
ggtctcttagctcagctggacagagcaacgtcgttctaagtcgttggtca
ttggttcgaatccaataggaccacca
1-2tRNA-Met(cat)c[66072,66146]
ggccctgtagctagacggttcaagcaggcggctcataaccgctcgtagca
ggttcgattcctgccagggccacca
1-3tRNA-Met(cat)c[66353,66429]
tgcgacgtagaggagagtcgtcctcgtcgggtcatatccggaaatcg
gtggttcgaatccatccgtcgcatcca
1-4tRNA-Asp(gtc)c[66451,66524]
ggagccatagtttatacggttaaaataatcccctgtcacgggatagcacc
gagttcgatcctcgggtggctccgc
1-5tRNA-Ser(gct)c[66598,66685]
ggagaagtggtgagcggtttaaatcgcttccctgctaaggaaagtaaacc
gaaaggtttcgagagttcgaatctctccttctccgccca
1-6tRNA-Ile(gat)c[66693,66768]
agtggattagctcagtaggtagcactcgaccgataatcgagagcgcac
tggttcgacccagtatccactacca
1-7tRNA-Trp(cca)c[66771,66846]
atgacattggtgttagcggtagcatgccggtcctccaaaaccgtcggcca
gggttcgaatccttgatgcatgccca
1-8tRNA-Thr(tgt)c[67195,67270]
gccgatttagctcatccgtagagcagttgtttgtaagcatcaggtggt
ccgttcgagtcggacaatcggcacca
1-9tRNA-Pro(tgg)c[67910,67986]
ccgcgtgtaggctagtcaggtaggtcgtctggttgggaccagaaagtcg
gaggttcgaatcctccacgcggacca
1-10tRNA-Gly(tcc)c[68493,68568]
gcgggtaaggtgttacggatacatgctagcctccaagcttgagtagac
cggttcgataccggctacccgctcca
1-11tRNA-His(gtg)c[68581,68655]
gtgacggtagctcagctggtagagccccaggttgatcctggtcgtcgc
gagttcaatcctcgtccgtcacccc
1-12tRNA-Lys(ttt)c[68947,69022]
gcccgcctagcttagttggtagagcatccggcttttaaccggagggtcga
tggttcgaatccatcgcgccgcacca
1-13tRNA-Tyr(gta)c[69080,69162]

ggaacgttcgggtaatggatatccaagcggctgtaaccgctcgcctctg
gcattcttgggtcagtcgaagcgttcacca
1-14tRNA-Asn(gtt)c[69658,69743]
ggtagatgggtcagaggttagcggcgactgtaatccgcgaggaatt
tcctctatactgggtcagtcagtcacaccgcca
1-15tRNA-Phe(gaa)c[69825,69909]
gttgctgtgagccagtggtgaaggcggctcttgaaacgggacgggt
gaaagacctcgaaggtcgaatcctccagcaacc
1-16tRNA-Ser(tga)c[69980,70073]
ggaagcttggcagagtcggctattgcactagcttgaaaactagcgat
cgtaggaatacgggtccatccgtcaaatcggatagcttccgcca
1-17tRNA-Leu(taa)c[70264,70347]
gggagtggtggaatggatatacactggagactaaaaatctcccgccttc
gggattgagggttcgagtcctcctctctacca

>KY290948.1 *Aeromonas* phage 44RR2.8t.2, complete genome

1-1tRNA-Arg(tct)c[65379,65455]
ggctcttagctcagctggacagagcaacgtcgttctaagtcgttggtca
ttggtcgaatccaataggaccacca
1-2tRNA-Met(cat)c[66424,66498]
ggccctgtagctagacggtcaagcaggcggctcataaccgctcgtagca
ggttcgattcctgccagggccacca
1-3tRNA-Met(cat)c[66706,66782]
tgcgacgtagaggagaggtcgtcctcgtcgggtcatatcccgaaatcg
tggttcgaatccatccgtcgcacca
1-4tRNA-Asp(gtc)c[66804,66877]
ggagccatagttatacggttaaaataatcccctgtcacgggatagcacc
gagttcgatcctcgggtggtccgc
1-5tRNA-Ser(gct)c[66951,67038]
ggagaagtggatgagcggtttaaatcgctccctgctaaggaagtaaacc
gaaagggttcgagagttcgaatctccttctccgcca
1-6tRNA-Ile(gat)c[67046,67121]
agtggattagctcagtagtagcactcgaccgataatcgagagcgcac
tggttcgacccagtatccactacca
1-7tRNA-Trp(cca)c[67124,67199]
atgacattggtgttagcggtagcatgccggtctccaaaaccgtgcggcca
gggttcgaatccttgatgtcatgcca
1-8tRNA-Thr(tgt)c[67545,67620]
gccgatttagctcatccgtagagcagttgtttgtaagcatcaggtggt
ccgttcgagtcggacaatcggcacca
1-9tRNA-Pro(tgg)c[68260,68336]
ccgctgtaggctagtcaggtaggtcgtctggttgggaccagaaagtcg
gaggttcgaatccttcacgcggacca
1-10tRNA-Gly(tcc)c[68842,68917]
gcgggtaaggtgtttacggatacatgtagcctccaagcttgagtagac

cggttcgataccggctacccgctcca
1-11tRNA-His(gtg)c[68930,69004]
gtgacggtagctcagctggtagagccccaggttgatcctggcgtcgc
gagttcaatcctcgtccgtcacc
1-12tRNA-Lys(ttt)c[69125,69200]
gcatcgtaactcaattggcagagtagcggaccttaatccgttggttct
gagttcgaatctcagacgggtacca
1-13tRNA-Tyr(gta)c[69804,69886]
ggaacgttcgggtaatggtatcccaagcggctgaacccgctcgccctctg
gcattcttggtcagagtcgaagcgtccacca
1-14tRNA-Asn(gtt)c[69900,69985]
ggtgatgtggctcagaggtgagcggcgactgtaatccgcgaggaatt
tcctctatactggttcgagtcagtcaccgcca
1-15tRNA-Phe(gaa)c[70067,70151]
gttgctgtgagccgagtggtgaaggcgtccctggaacgggacgggt
gaaagacctcgaaggttcgaatccttcagcaacc
1-16tRNA-Ser(tga)c[70222,70315]
ggaagcttggcagagctggttattgcactagcttgaactagcgt
cgtaggaatacgtccatccgttcaaatcgatagcttcgcca
1-17tRNA-Leu(taa)c[70506,70589]
gggagtggtggaacggcatacacaggaggcttaaacctcccgccttc
gggattgagggttcgagtcctcctcctacca

>KY290956.1 Aeromonas phage L9-6, complete genome

1-1tRNA-Arg(tct)c[66651,66727]
ggtctcttagctcagctggacagagcaacgtcgttctaagtcgttggtca
ttggtcgaatccaataggaccacca
1-2tRNA-Met(cat)c[67696,67770]
ggccctgtagctagacggtcaagcaggcggctcataaccgctcgtagca
ggttcgattcctgccaggccacca
1-3tRNA-Met(cat)c[67978,68054]
tgcgacgtagaggagaggtcgtcctcgtcgggctcatatcccggaaatcg
tggttcgaatccatccgtcgcacca
1-4tRNA-Asp(gtc)c[68076,68149]
ggagccatagttatacggttaaaataatcccctgtcacgggatagcacc
gagttcgaatcctcgttggtccgc
1-5tRNA-Ser(gct)c[68223,68310]
ggagaagtggatgagcggtttaaatcgcttcctgctaaggaagtaaacc
gaaaggttcgagagttcgaatctctccttcgcca
1-6tRNA-Ile(gat)c[68318,68393]
agtggattagctcagtagtagcactcgaccgataatcgagagcgcac
tggttcgacccagtatccactacca
1-7tRNA-Trp(cca)c[68396,68471]
atgacattggtgttagcgttagcatgccggtctccaaaaccgtgcggcca
gggttcgaatccttgatgtcatgcca

1-8tRNA-Thr(tgt)c[68820,68895]
 gctggattagctcatctggaagagcagttgtttgtaagcatcaggtggt
 ccgttcgagtcggacatccagcacca
 1-9tRNA-Pro(tgg)c[69162,69238]
 ccgcgtgtaggctagtcaggtaggtcgtctggttgggaccagaaagtcg
 gaggttcgaatcctccacgcggacca
 1-10tRNA-Gly(tcc)c[69745,69820]
 gcgggtaaggtgttacggatacatgctagcctccaagcttgagtagac
 cggttcgataccggctacccgctcca
 1-11tRNA-His(gtg)c[69833,69907]
 gtgacggtagctcagctggttagagccccaggttgatcctggtcgtcgc
 gattcaatcctcgtccgtcacccc
 1-12tRNA-Lys(ttt)c[70028,70103]
 gcgccgctagcttagttggttagacatccggctttaaccggagggtcga
 tggttcgaatccatcgccgcgcacca
 1-13tRNA-Tyr(gta)c[70161,70243]
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 gcattcttggttcgagtcgaaggcgttcacca
 1-14tRNA-Asn(gtt)c[70259,70334]
 ggttcattagctcagtggttagagcgttcgcctgttaagcgaggggtcac
 cggttcaaatccggtatggaccgcca
 1-15tRNA-Phe(gaa)c[70418,70502]
 gttgctgtgagccgagtggtcgaaggcggctctggaaacgggacgggtt
 gaaagacctcgaaggttcgaatcctccagcaacc
 1-16tRNA-Ser(tga)c[70573,70666]
 ggaagcttggcagagctcggcttattgcactagcttgaaaactagcat
 cgtaggaatacggccatccgtcaaatcggatagcttccgcca
 1-17tRNA-Leu(taa)c[70857,70940]
 gggagtgtggtggaacggcatacacaggaggttaaacctcccgccttc
 gggattgagggttcgagtcctcctcctctacca
 >KY290957.1 Aeromonas phage Riv-10, complete genome
 1-1tRNA-Arg(tct)c[66489,66565]
 ggtctcttagctcagctggacagagcaacgtcgttctaagtcgttggtca
 ttggttcgaatccaataggaccacca
 1-2tRNA-Met(cat)c[67534,67608]
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 ggttcgattcctgccagggccacca
 1-3tRNA-Met(cat)c[67816,67892]
 tgcgacgtagaggagaggtcgtcctcgtcgggctcatatcccgaaatcg
 gtggttcgaatccatccgtcgcaccca
 1-4tRNA-Asp(gtc)c[67914,67987]
 ggagccatagtttatacggttaaaataatcccctgtcacgggatagcacc
 gattcgatcctcgggtggtccgc
 1-5tRNA-Ser(gct)c[68061,68148]

ggagaagtggatgagcggtttaaatcgcttccctgctaaggaagtaaacc
 gaaaggttgcgaggttcgaatctctcttctccgcc
 1-6tRNA-Ile(gat)c[68156,68231]
 agtggattagctcagtaggtagagcactcgaccgataatcgagagcgcac
 tggttcgacccagtatccactacca
 1-7tRNA-Trp(cca)c[68234,68309]
 atgacattggtgttagcggtagcatgccggtctccaaaccgtgcggcca
 gggttcgaatccttgatgtcatgcc
 1-8tRNA-Thr(tgt)c[68655,68730]
 gccgatttagctcatccgtagagcagttgtttgtaagcatcaggtggt
 ccgttcgagtcggacaatcggcacca
 1-9tRNA-Pro(tgg)c[69370,69446]
 ccgcgtgtaggctagtcaggtaggtcgtctggttgggaccagaaagtcg
 gaggttcgaatcctccacgcggacca
 1-10tRNA-Gly(tcc)c[69952,70027]
 gcgggtaagggtgttacggatacatgctagcctccaagcttgagtagac
 cggttcgataccggctacccgctcca
 1-11tRNA-His(gtg)c[70040,70114]
 gtgacggtagctcagctggtagagccccaggttgatcctggtcgtcgc
 gattcaatcctcgtccgtcacccc
 1-12tRNA-Lys(ttt)c[70235,70310]
 gcatcgtaactcaattggcagagtagcggaccttaatccgttggtct
 gattcgaatctcagacggtgtacca
 1-13tRNA-Tyr(gta)c[70914,70996]
 ggaacgttcgggtaatggtatccaagcggctgtaaccgctcgcctctg
 gcattcttggttcgagccaaggcgtccacca
 1-14tRNA-Asn(gtt)c[71010,71095]
 ggtgatgtggctcagaggttagcggcgactgttaatccgcgaggaatt
 tcctctatactggttcgagtcagtcacaccgcca
 1-15tRNA-Phe(gaa)c[71177,71261]
 gttgctgtgagccgagtggtgaaggcggctccctggaaacgggacgggtt
 gaaagacctcgaaggttcgaatcctccagcaacc
 1-16tRNA-Ser(tga)c[71332,71425]
 ggaagcttggcagagtcgtggttattgcactagtctgaaaactagcgat
 ctaggaatacgggtccatccgttcaaatcggatagcttccgcca
 1-17tRNA-Leu(taa)c[71616,71699]
 gggagtgtggtggaacggcatacacaggaggcttaaacctcccgccttc
 gggattgagggttcgagtcctcctctctacca

>KY290958.1 *Aeromonas* phage SW69-9, complete genome

1-1tRNA-Arg(tct)c[66154,66230]
 ggtctcttagctcagctggacagagcaacgtcgttctaagtcgttggtca
 ttggttcgaatccaataggaccacca
 1-2tRNA-Met(cat)c[67199,67273]
 ggcctgtagctagacggttcaagcaggcggctcataaccgctcgtagca

ggttcgattcctgccagggccacca
1-3tRNA-Met(cat)c[67481,67557]
tgcgacgtagaggaggtcgtcctcgtcgggtcatatcccggaaatcg
gtggttcgaatccatccgtcgcaccca
1-4tRNA-Asp(gtc)c[67579,67652]
ggagccatagttatcagggttaaaataatcccctgtcacgggatagcacc
gagttcgatcctcggtaggtccgc
1-5tRNA-Ser(gct)c[67726,67813]
ggagaagtggatgagcgggttaaatcgcttccctgctaaggaagtaaacc
gaaaggttcgagagttcgaatctctcttcccgcca
1-6tRNA-Ile(gat)c[67821,67896]
agtggattagctcagtagtagcactcgaccgataatcgagagcgac
tggttcgacccagtatccactacca
1-7tRNA-Trp(cca)c[67899,67974]
atgacattggtgttagcggtagcatgccgtctccaaaaccgtgcggcca
gggttcgaatccttgatgtcatgcca
1-8tRNA-Thr(tgt)c[68320,68395]
gccgatttagctcatccgtagagcagttgtttgtaagcatcaggtgtt
ccgttcgagtcggacaatcggcacca
1-9tRNA-Pro(tgg)c[69037,69111]
ctcgggttaggcaagtggatgtcgttccgttgggacggaatttcgag
tgttcgattcactccaccgagacca
1-10tRNA-Gly(tcc)c[69300,69375]
gcgggtaaggtgttatggatacatgctagcctccaagcttgagtagac
cgggttcgataccggctacccgctcca
1-11tRNA-His(gtg)c[69388,69462]
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gagttcaatcctcgtccgtcacccc
1-12tRNA-Lys(ttt)c[69583,69658]
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tggttcgaatccatcgcgccgaccca
1-13tRNA-Tyr(gta)c[69706,69788]
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1-14tRNA-Asn(gtt)c[69804,69879]
ggttcattagctcagtggttagagcgttcgcctgttaagcgaggggtcac
cggttcaaatccggtatggaccgcca
1-15tRNA-Phe(gaa)c[69963,70047]
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gaaagacctcgaagggtcgaatccttcagcaacc
1-16tRNA-Ser(tga)c[70118,70211]
ggaagcttggcagagcttggttattgcactagtcttgaactagcgat
cgtaggaatacgggtccatccgttcaatcggatagcttccgcca
1-17tRNA-Leu(taa)c[70402,70485]

gggagtgtggtggaatggtatacacaggaggcttaaacctccgccttc
 gggattgagggttcgagtcctcctctctacca
 >KY368639.1 Bacillus phage vB_BsuM-Goe2, complete genome
 1-tRNA-Asn(gtt)[28541,28615]
 tcctctatagctcaatggtagagcacatgactgttaatcatggggttgta
 ggttcgaatcctactggaggagcca
 1-2tRNA-Ser(gct)[28703,28792]
 tggaatgttaccgaagcggttaaggggtctggtgctaaccagatagcgg
 gcttgatgtccggcataggttcgaatcctataattccgt
 1-3tRNA-Arg(cct)[32867,32941]
 tgcccatgtagctcagggatagagcacgtccctcctaaggacggtgtcg
 ggagttcaattctctccatgggcgt
 >KY368640.1 Bacillus phage vB_BsuM-Goe3, complete genome
 1-tRNA-Asn(gtt)[30657,30730]
 ttgtcccatagctcaatggtagagcgtccggctgtaaccgggaggttgc
 tgggtcgaaccagctgggacagt
 1-2tRNA-Met(cat)[32239,32308]
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 ttcgactccctcctctgcaa
 1-3tRNA-Arg(tct)[32712,32786]
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 taggttcgactcctagcaggggcgt
 1-4tRNA-Asp(gtc)[32787,32860]
 ttgctctatagtgtagcgggtcaacacgccagcctgtcacgctggtatccc
 ggggtcgaatcccggtagagtcgt
 1-5tRNA-Tyr(gta)[33266,33349]
 ggggtgagcggtaacgtaggagagttacgatggactgtaaatccattcctt
 tcgaggttagagtgttcgaatcactccttaccca
 >KY581279.1 Staphylococcus phage pSa-3, complete genome
 1-tRNA-Met(cat)c[11602,11673]
 ggactcttagcttaaaggtaaagccaaccgctcataacggtttgactgta
 ggttcgaatcctgcagagtcca
 1-2tRNA-Trp(cca)c[34820,34891]
 acacccttagtataattagtagtacaagggtctccaaacccttagtctt
 tgtgcaaatcaaagagggtgtg
 1-3tRNA-Phe(gaa)c[34898,34970]
 ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
 tgggtcaaatccaatagaacca
 1-4tRNA-Asp(gtc)c[34976,35051]
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 acgagttcgagtcctctatgggtcgt
 >KY630187.1 Serratia phage BF, complete genome
 1-tRNA-Ser(gct)[269274,269366]
 ggtagattgggtgagtggtttaaccagcttctgctaagaagtcggtcg

ctcaaaaggcgcccggtgggttcaaattccacatctacctcca
1-2tRNA-Trp(cca)[273739,273810]
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gttcaattcctacatctcctgc
1-3tRNA-Thr(tgt)[276483,276555]
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ggttcgagtcctgactaaccac
1-4tRNA-Leu(tag)[281227,281308]
ggggatatggtggaattggtagacacgtggtcttagaagccaccgcctt
gtcgtgggagttcgagtcctccatccccac
1-5tRNA-Arg(tct)[288101,288173]
ctcctgttagctcaatggatagagcagtagccttctaagctatagatata
ggttcgattcctatacgggagac
1-6tRNA-Pyl(cta)[289666,289741]
gcctttgtagctcagttggtagagcgggaatctctaaaattctttgtcgt
cggttcgagtcgaccatcggcacca
1-7tRNA-Met(cat)[290082,290156]
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ggatcgttcccaacaaggccacca
1-8tRNA-Leu(taa)[291529,291617]
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gtttccccttgtgagttcgaatctcatcaccgtacca
1-9tRNA-Leu(caa)[298104,298189]
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taatccgtgtcggttcgactccgactatccccacca
1-10tRNA-Glu(ttc)[301155,301229]
gttctgttagacaaattggtaaagtcaccacccttcaaggtggggttta
cgggttcgacccccgtacagaacgc
1-11tRNA-Ser(tga)[301575,301667]
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ggttaacagccctccgagggttcaaattccctcacctacctcca
1-12tRNA-Ser(gga)[302319,302411]
ggtaaagtggcagagcggctgaatgcaaccgcttggaagcggtcaggtt
aggtaatccctagcctcgtaggttcaaatcctatctttaccgc
1-13tRNA-Ile(gat)[304238,304311]
gggaatataattcagttggtagaatgctcgaccgataatcgagtcgccgc
tggttcgagtcagctattccac
1-14tRNA-Asn(gtt)[306231,306303]
ggttatgtcgataaaggttattacggagagctgtaactctttatctt
ggttcgattccaagcatgaccgc
1-15tRNA-Gln(ttg)[306480,306553]
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aggttcgagtccttatattcctgc
1-16tRNA-Gly(tcc)[306704,306786]

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1-17tRNA-Asp(gtc)[308007,308079]
ggagctatcgtatatacggtagtatactcccctgtcacgggagagaggcg
ggttcgattcccgtagttccgc
1-18tRNA-Arg(acg)[308761,308835]
gttctcgtagctcattcgatagagcgtcacgctacgaacgtgaaggtag
taggttcgatccctccgagaacgc
1-19tRNA-Pro(tgg)[310225,310301]
cggggtgtagctcagttgattagagtgcataatttggggatatgaagccg
ctggtttgagtcagccatcccaccca
1-20tRNA-Pro(tgg)[310311,310383]
ctccgattgggtcattggtgatcgcatagttgggactatgattaaggg
tgttcgattcactcattggagac
1-21tRNA-His(gtg)[312101,312177]
gtggctataagcatagttggtaattgtcctgtgacgcagatgacg
tgggttcgactcccactagccacacca
1-22tRNA-Phe(gaa)[312444,312521]
gggtctgtagctcagtaggttagagcgttggttgaaacaccaaaggctc
gagggttcgattccctctggaccaccca
1-23tRNA-Lys(ttt)[313219,313305]
gggtcgttcactcagttggttagagtaccggacttttaatccggcgggta
tatcccatcgaaggttcgaatccttcacggcctacca
1-24tRNA-Tyr(gta)[315603,315687]
ggcatcgtcgcatagcggcaattgcaggagactgtaaatctctgccttc
gggcttcgttggttcgagtcgaaccgggtgccacca
1-25tRNA-Cys(gca)[317506,317583]
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gggggttcgaatccctcccgttgctcca
1-26tRNA-Lys(ctt)[317955,318031]
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agggttcgaatccctgacagcccacca
1-27tRNA-Met(cat)[318316,318389]
ggtcagttagttcagttggtagaacgctcactcataatgaagaagtcac
tggatcgtagccagtagtaccac
1-28tRNA-Met(cat)[319253,319328]
tcgggagtagagcagtggttagcttgcaaggctcataaccttgaggtcgtg
tttggttcgaatccaccccgcatc
1-29tRNA-Ala(tgc)[319346,319419]
ggggatatagctcagttgggagagcatctgccttcacgtagaagggtcat
cgggttcgaccccgattatctccac

>KY593455.1 Yersinia phage fHe-Yen9-01, complete genome

1-1tRNA-Gly(tcc)c[75566,75641]
gcagagttcgtatagtggttaatactattgactccacccagtaaacat

cggttcgaatccgatactctgtcca
1-2tRNA-Trp(cca)c[75892,75966]
aggtctttagtatagtggtcgttgggtccaaacctagtgacggg
tggtcgattcacccaaggcctcca
1-3tRNA-Arg(tct)c[77249,77325]
gtcctcatagctcaacaggacagagcaacggtcttctaaacctaggttg
ctggttcgattccagctggggacacca
1-4tRNA-Met(cat)c[77562,77638]
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ctggttcgaatccagtaagggtcacca

>KY608967.1 UNVERIFIED: Escherichia phage CF2, complete genome

1-1tRNA-Gln(ttg)[87968,88041]
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aggttcgagtcctttattcccagc
1-2tRNA-Leu(taa)[88042,88128]
gcgagaatggccaaattggtaaaggcacagcacttaaaatgctcggaat
gatttccttggtggttcgagtccttctcgcacca
1-3tRNA-Gly(tcc)[88134,88207]
gcggatatcgataatggtattacctcagactccaatctgatgatgtga
gttcgattctcattatccgtcca
1-4tRNA-Pro(tgg)[88218,88292]
ctccgtgtagctcagtttgtagagcgtctgcttgggagcagaatgtcg
taggttcaaactcctgccacggagac
1-5tRNA-Ser(tga)[88294,88383]
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1-6tRNA-Thr(tgt)[88389,88464]
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cggttcgattccgtcaatcagcacca
1-7tRNA-Met(cat)[88466,88540]
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ggttcaattccaccagggccacca
1-8tRNA-Tyr(gta)[88550,88636]
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tgcgactcgggtggttcgactccaccactccccacca
1-9tRNA-Asn(gtt)[88641,88715]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattggtata
ggttcgaatcctatcacgtccgcca
1-10tRNA-His(gtg)[88830,88905]
gtggccgtagttcagttggtagaactcgagattgtgattctcgtagtc
gggttcgactcccatcggtcaccacca
1-11tRNA-Arg(tct)[88910,88985]
cggggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
aggttcgatccctactgcctcgacca

>KY608965.1 UNVERIFIED: Escherichia phage HP3, complete genome

1-1tRNA-Arg(tct)[84135,84211]
cgaggcataactcaattgtatagagcaacggacttctaataccgtagggtg
aaggtagaatccttctgtctcgacca
1-2tRNA-Met(cat)[84218,84291]
ggccctgtagctcaatggtagcagcagtcgccctcataagggaaaggta
ccagttcgaatctggctgggtca

>KY626162.1 Salmonella phage Si3, complete genome

1-1tRNA-Pro(tgg)[2154,2230]
ctctgttagctcagcttgtagagcgttcggttggggcggttaaggccg
gaggttcaagtctccaacagagacca
1-2tRNA-Glu(ttc)[2238,2315]
gttcagtagacaaaatggtagtcaccactcttcaaagtgatatt
gagggttcaaatcccttctggaacgcca
1-3tRNA-Met(cat)[2407,2483]
tgcgggtatagagaaaggcgctctcacatgtctcattagcatgggtatcgg
caggttcgactcctgcacccgcctcca
1-4tRNA-Asn(gtt)[2567,2643]
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agggttcgaatccctgactaaccgcca
1-5tRNA-Tyr(gta)[2713,2800]
gtgtcggtatcccgtagatggtagcgggtgggactgtaaatccctgtca
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1-6tRNA-Asp(gtc)[2806,2882]
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agggttcaaatcccttcgtaaccgcca
1-7tRNA-Lys(ttt)[3311,3386]
ggaagtgtagcagaatggtagtcggcagacttttaactctgacaggcgat
gggttcgaatccctccactctacca
1-8tRNA-Met(cat)[3391,3467]
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tgggttcgattcccatctgaacctcca
1-9tRNA-Ile(gat)[3470,3544]
tgtgggttagcataaatggtaatgcaaacggctgataaccgtagaagag
ggttcgataccctcacctacaacca
1-10tRNA-Ser(tga)[4201,4290]
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gtagagatacggtaggggttcgactccttactaccgcc
1-11tRNA-Leu(tag)[4546,4623]
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1-12tRNA-Lys(ctt)[4631,4706]
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1-13tRNA-Ala(tgc)[4713,4788]
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 1-14tRNA-Gly(tcc)[4795,4869]
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 ggttcgattccctctggatgctcca
 1-15tRNA-Thr(tgt)[4876,4952]
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 1-16tRNA-Val(tac)[5048,5122]
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 ggttcaagtccttagtgagtacca
 1-17tRNA-Leu(taa)[5124,5202]
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 1-18tRNA-Gln(ctg)[5208,5283]
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 aggttcaaatccttatgccgctgccca
 1-19tRNA-His(gtg)[5315,5390]
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 1-20tRNA-Phe(gaa)[5397,5472]
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 aggggtcaaatcccactggactacca
 1-21tRNA-Ser(gct)[6226,6318]
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 ggggtcaagtccttcggattctcca
 >KP143762.1 Salmonella phage Mushroom, complete genome
 1-1tRNA-Cys(gca)c[60589,60664]
 gaatccgtgacagaaatggatatgtgcctgtctgcaaaacaggtttataa
 ggggtcaagtccttcggattctcca
 1-2tRNA-Ser(gct)c[60669,60761]
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 ctgagaaatcggtgtaccagttcaagtcggtatcttctcca
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 aggggtcaaatcccactggactacca
 1-4tRNA-His(gtg)c[61596,61671]
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 1-5tRNA-Gln(ctg)c[61703,61778]

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1-6tRNA-Leu(taa)c[61784,61862]
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tatcggttcgaatccgatatggagtacca
1-7tRNA-Gln(ttg)c[61865,61940]
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tggttcaattccaacatcccccgcca
1-8tRNA-Leu(caa)c[62525,62602]
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gacggttcgaatccgtcttggaaacacca
1-9tRNA-Val(tac)c[62604,62678]
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ggttcaagtccttagtgagtacca
1-10tRNA-Thr(tgt)c[62774,62850]
gctgcttcgtataattggctattacacatcccttgaaggatggaaatg
caggttcgagtcctgtgagcagcacca
1-11tRNA-Gly(tcc)c[62857,62931]
gcatccatagtttaaacgggaaaattacagtccttcaaactgaggttgag
ggttcgattccctctggatgctcca
1-12tRNA-Ala(tgc)c[62938,63013]
tgggtcatagtttatagggtaaaatcgagtttgcaaacttggaact
gagttcaattctcagtgactccacca
1-13tRNA-Lys(ctt)c[63020,63095]
gcaggtgtagcaaaatggttatgcggctgactcttaacagtaagacgat
gggttcaattccctccacctgtacca
1-14tRNA-Leu(tag)c[63103,63180]
gggagattgacggtaattggtaaacctaccatccttagaagttggtgtt
gagggttcgaatcccttgtctctacca
1-15tRNA-Ser(tga)c[63436,63525]
ggtaggtagcggctaattggtagccaaactgtcttgaaaacagttgccact
gtagagatacggtaggggttcgactccttacttaccgcc
1-16tRNA-Ile(gat)c[64183,64257]
tgtgggtagcataaatggtaatgcaaacggctgataaccgtagaagag
ggttcgataccctcacctacaacca
1-17tRNA-Met(cat)c[64260,64336]
ggttcagtcgcagataaggtaatgcaagggtctcataagccctatgaatg
tgggttcgattcccatctgaacctcca
1-18tRNA-Lys(ttt)c[64341,64416]
ggaagtgtagcagaatgggtgatcggcagacttttaactgacaggcgat
gggttcgaatccctccacttctacca
1-19tRNA-Asp(gtc)c[64845,64922]
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gagggttcaaatcccttcgtaaccgcca

1-20tRNA-Tyr(gta)c[64928,65015]
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1-21tRNA-Asn(gtt)c[65085,65161]
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agggttcgaatccctgactaaccgcca
1-22tRNA-Met(cat)c[65245,65321]
tgcgggtatagagaaaggcgtctcacatgtctcattagcatggatcgg
cagggtcgactcctgcacccgcctcca
1-23tRNA-Glu(ttc)c[65413,65490]
gttcagtagacaaaatggtagtcaccactcttcaaagtggatatt
gagggttcaaacccttctggaacgcca
1-24tRNA-Pro(tgg)c[65498,65574]
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>KY654690.2 *Citrobacter* phage Mijalis, complete genome

1-1tRNA-Cys(gca)c[60325,60400]
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gggttcaagtccttccgatactcca
1-2tRNA-Ser(gct)c[60408,60500]
ggaagattaaccataaaaggaaggagcagtttgctaaactgccagtaa
ccgagaaatcgcgtagcagttcaagctcgtatcttctcca
1-3tRNA-Phe(gaa)c[61252,61327]
agctcaattagcttatatggttaaagcgcgtgtctgaaaaacatgagaac
agggttcaaaccgatgggctacca
1-4tRNA-His(gtg)c[61335,61411]
gtggccttatcataaatggataatgacctatgctgaacatggtctata
cgggttcgattcccgtaggtcacccca
1-5tRNA-Gln(ctg)c[61443,61518]
agcagtgtagcataactggcaatgcaccagccttgaagctgaatgatta
agggttcaaatccttacgctgctgcca
1-6tRNA-Leu(taa)c[61525,61603]
gtccattactccaattggcagagagaccagactaaaatctgcgttatg
tatcggttcgaatccgatatggagtacca
1-7tRNA-Gln(ttg)c[61606,61681]
aggggattagtttacacggttaaacctcggctttgaaatcgaagaaga
tggttcaattccatcatccccgcca
1-8tRNA-Arg(acg)c[61689,61765]
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>KY779849.1 Staphylococcus phage qdsa002, complete genome

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1-3tRNA-Phe(gaa)c[41217,41289]
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>KY703222.1 Escherichia phage phiC120, complete genome

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>KR052480.1 Sinorhizobium phage phiM7, complete genome

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1-7tRNA-Lys(ttt)[98572,98648]
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>KY683736.1 Escherichia phage V18, complete genome
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>KY794641.1 Staphylococcus phage vB_Sau_CG, complete genome
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>KY994101.1 Pseudomonas phage vB_PaeM_G1, complete genome
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>KY945241.1 Synechococcus phage S-H35, complete genome
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 >KT363872.2 Citrobacter phage Mordin, complete genome
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1-21tRNA-Asp(gtc)c[14678,14754]
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1-22tRNA-Tyr(gta)c[14760,14847]
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1-23tRNA-Asn(gtt)c[14857,14933]
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agggttcgaatccctgactaaccgcca

1-24tRNA-Met(cat)c[15011,15087]
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 1-25tRNA-Glu(ttc)c[15179,15256]
 gttccagtagacaaaatggtaaagtcaccactctttcaaagtggatatt
 gagggttcaaatcccttctggaacgcca
 1-26tRNA-Pro(tgg)c[15264,15340]
 ctctgttagctcagcttggtagagcgtccgtttggggcggttaaggccg
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 >KT321315.1 Enterobacter phage phiEap-3, complete genome
 1-1tRNA-Met(cat)[48303,48379]
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 >KT001919.1 Klebsiella phage Miro, complete genome
 1-1tRNA-Met(cat)[49904,49980]
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 cggttcaagtcacgggaggggccacca
 >MF044457.1 Escherichia phage ST0, complete genome
 1-1tRNA-Gln(ttg)[155681,155754]
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 aggttcgagtcctttattcccagc
 1-2tRNA-Leu(taa)[155755,155841]
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 1-3tRNA-Gly(tcc)[155847,155920]
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 1-4tRNA-Pro(tgg)[155931,156005]
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 aaggttcaaatccttgatggagac
 1-5tRNA-Ser(tga)[156007,156096]
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 ctccggcgactcataggttcaaatcctatcgctccgcca
 1-6tRNA-Thr(tgt)[156102,156177]
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 1-7tRNA-Met(cat)[156179,156253]
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 1-8tRNA-Tyr(gta)[156266,156352]
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 1-9tRNA-Asn(gtt)[156357,156431]
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 1-10tRNA-Arg(tct)[156436,156511]
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 >MF044458.1 Escherichia phage ST32, complete genome
 1-1tRNA-Leu(cag)c[37452,37546]
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 >JN204348.1 Mycobacterium phage Sebata, complete genome
 1-1tRNA-Ser(gct)[32038,32121]
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 cacaccgtgagtttcgattactcctccctccgc
 1-2tRNA-Leu(cag)[32218,32294]
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 tccgggttcgactcccgggcagggtac
 1-3tRNA-Leu(gag)[32414,32488]
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 1-4tRNA-Leu(caa)[32489,32562]
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 ggggttcgaatcccggccacggtac
 1-5tRNA-SeC(tca)[68899,68995]
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 1-7tRNA-Trp(cca)[92986,93056]
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 1-8tRNA-Pyl(cta)[94193,94265]
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 1-9tRNA-Met(cat)[94415,94489]
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 cgtgttcgattcacgccaccgccac
 1-10tRNA-Cys(gca)[94616,94687]
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 gttcgactccgggaggcgctc
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 1-12tRNA-His(gtg)[94828,94901]
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1-13tRNA-Ala(tgc)[95065,95138]
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aggttcaagtcctgttaggtccac
1-14tRNA-Phe(gaa)[95327,95399]
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ggttcgagtcctcgtgtcggcac
1-15tRNA-Val(cac)[95405,95478]
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1-16tRNA-Lys(ctt)[95597,95669]
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1-17tRNA-Glu(ttc)[95673,95747]
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1-18tRNA-Gly(tcc)[95827,95899]
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1-19tRNA-Thr(cgt)[95981,96055]
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cggttcgagtcggacagcagcccc
1-20tRNA-Thr(tgt)[96056,96128]
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cggttcgatccgggtagaggctc
1-21tRNA-Thr(ggt)[96536,96608]
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1-22tRNA-Gly(gcc)[97931,98004]
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1-23tRNA-Asp(gtc)[98008,98080]
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gtatcgtaatccgtcagggtcgc
1-24tRNA-Met(cat)[98140,98212]
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ggttcgattccagggtgaggtac
1-25tRNA-Ile(gat)[98218,98292]
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ggtgttcgattcaccgagcaggtac
1-26tRNA-Arg(acg)[98386,98458]
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tgttcgattcgcgctaggggcac
1-27tRNA-Val(gac)[98501,98573]

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ggttcgaaacctcgcatggacac

1-28tRNA-Arg(cct)[98747,98820]

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1-30tRNA-Gln(ttg)[99361,99436]

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1-31tRNA-Arg(tct)[99440,99515]

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gagttcgaatctctccagggcacca

1-32tRNA-Gln(ctg)[126655,126729]

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ggttcgaatcctaagcgagcagcca

1-33tRNA-Asn(gtt)[126736,126809]

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>MF042360.1 Pseudomonas phage Phabio, complete genome

1-1tRNA-Ser(tga)c[294586,294674]

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1-2tRNA-Leu(taa)c[294680,294765]

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1-3tRNA-Asn(gtt)c[296411,296486]

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>MF036691.1 Serratia phage CBH8, complete genome

1-1tRNA-Leu(taa)c[70949,71033]

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1-2tRNA-Arg(tct)c[71039,71115]

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aaagttcgaatcttctgtctcgacca

1-3tRNA-Met(cat)c[72200,72275]

ggccctgtagctcagcggtagagcgctcccctcataagggttggtcact
ggttcgaatctcagtcagggtcacca

1-4tRNA-Gly(tcc)c[72662,72736]

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agttcgattctctctggatgctcca

1-5tRNA-Trp(cca)c[72738,72811]

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1-6tRNA-Ile(gat)c[72980,73055]

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 atggttcgagtcacatgatgtccacca
 1-14tRNA-Glu(ttc)c[74571,74645]
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 1-15tRNA-Asp(gtc)c[74650,74725]
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 1-16tRNA-Tyr(gta)c[74732,74820]
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>MF036690.1 Serratia phage CHI14, complete genome

1-1tRNA-Leu(taa)c[70949,71033]
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 1-3tRNA-Met(cat)c[72200,72275]
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 1-4tRNA-Gly(tcc)c[72662,72736]
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1-5tRNA-Trp(cca)c[72738,72811]
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1-6tRNA-Ile(gat)c[72980,73055]
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1-7tRNA-Pro(tgg)c[73060,73137]
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1-8tRNA-Ser(tga)c[73410,73503]
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cctggtgacaggtcccgtgagttcgaatctcacatcttctcca
1-9tRNA-His(gtg)c[73508,73583]
gtggccgtagttcagttggtagaaccttaattgtgattcaggatgtcgt
ggattcgagttccaccggtcacccca
1-10tRNA-Gln(ttg)c[73680,73755]
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1-11tRNA-Met(cat)c[74196,74272]
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atggttcgagtcacatccccgcctcca
1-12tRNA-Asn(gtt)c[74398,74481]
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1-13tRNA-Lys(ttt)c[74489,74565]
gggatattagctcagttggttagagcaccggacttttaatccgggtgtcc
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1-14tRNA-Glu(ttc)c[74571,74645]
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1-15tRNA-Asp(gtc)c[74650,74725]
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gagttcgaatctcgttaggtccgcca
1-16tRNA-Tyr(gta)c[74732,74820]
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taatgagctcgtaggttcgagtccttctcggcgcacca

>MF036692.1 Serratia phage X20, complete genome

1-1tRNA-Thr(tgt)c[70617,70692]
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1-2tRNA-Arg(tct)c[71236,71311]
gctcttatagtgtaatggatagcacacgatcgttctaaggtcggtagtct
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1-3tRNA-Leu(taa)c[71313,71399]
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gttctccttgtgggttcgagtccttctcgacca
1-4tRNA-Met(cat)c[72484,72559]
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ggttcgaatctcagtcagggtcacca
1-5tRNA-Gly(tcc)c[72946,73019]
gcgtctatagtataatggaattatgactggcttcccccagtagatgaga
gttcaattctccctagacgtcca
1-6tRNA-Trp(cca)c[73027,73100]
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1-7tRNA-Ile(gat)c[73269,73344]
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tggtcgagcccaggtattcgacca
1-8tRNA-Pro(tgg)c[73349,73426]
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1-10tRNA-His(gtg)c[73795,73870]
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1-11tRNA-Gln(ttg)c[73967,74042]
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1-12tRNA-Met(cat)c[74482,74558]
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atggttcgagtcacatccccgcctcca
1-13tRNA-Asn(gtt)c[74684,74767]
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1-14tRNA-Lys(ttt)c[74775,74851]
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1-15tRNA-Glu(ttc)c[74857,74931]
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1-16tRNA-Asp(gtc)c[74936,75012]
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1-17tRNA-Tyr(gta)c[75019,75107]
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 >KY979109.1 Salmonella phage SHP1, complete genome
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 1-2tRNA-Asn(gtt)[6941,7015]
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 ggttcgaatccatgcatgtccgcca
 1-3tRNA-Arg(tct)[7020,7095]
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 >MF370225.1 Salmonella phage ST11, complete genome
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 1-2tRNA-Glu(ttc)[22980,23057]
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 1-3tRNA-Met(cat)[23149,23225]
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 1-4tRNA-Asn(gtt)[23309,23385]
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 agggttcgaatccctgactaaccgcca
 1-5tRNA-Tyr(gta)[23455,23542]
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 ttgagactcggtaggttcgactcctacacggcacacca
 1-6tRNA-Asp(gtc)[23548,23625]
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 gagggttcaaatcccttcgtaaccgcca
 1-7tRNA-Lys(ttt)[24052,24127]
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 1-8tRNA-Met(cat)[24132,24207]
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 ggggtcgattcccatctgaacctcca
 1-9tRNA-Ile(gat)[24210,24284]
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 ggttcgataccctcacctacaacca
 1-10tRNA-Ser(tga)[24999,25088]
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 1-11tRNA-Leu(tag)[25344,25421]
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 1-12tRNA-Lys(ctt)[25429,25504]
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 gggttcaattccctccacctgtacca
 1-13tRNA-Ala(tgc)[25511,25586]
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 gattcaattctcagtgtactccacca
 1-14tRNA-Gly(tcc)[25593,25667]
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 ggttcgattccctctggatgtacca
 1-15tRNA-Thr(tgt)[25876,25952]
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 cagggttcgagtcctgtgagcagcacca
 1-16tRNA-Val(tac)[26048,26122]
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 ggttcaagtcctttagtgagtacca
 1-17tRNA-Leu(caa)[26124,26201]
 gtccagtatcccaattggcagaggatgcaagctcaaacctgtattagt
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 1-18tRNA-Gln(ttg)[26886,26961]
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 1-19tRNA-Leu(taa)[26964,27042]
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 1-20tRNA-Gln(ctg)[27048,27123]
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 1-21tRNA-His(gtg)[27155,27230]
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 gggttcaaatcccgtaggtcacccca
 1-22tRNA-Phe(gaa)[27237,27312]
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 agggttcaaatcccactggactacca
 1-23tRNA-Ser(gct)[28065,28157]
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 ctgagaaatcgggtgtaccagttcaagtcgtgtatcttctcca
 1-24tRNA-Cys(gca)[28162,28237]
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 gggctcaagtccttcggattctcca

>MF351863.1 Synechococcus phage Bellamy, complete genome

1-tRNA-Leu(taa)[23706,23791]
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 attatctcgtgggggttcaagtcccccgctcctat

1-2tRNA-Thr(tgt)[24100,24173]
gccaaacttagctcagctggatagacagggtttttaaagctcaggtca
tcggttcaagtcgatatgttgct
1-3tRNA-Ala(tgc)[143368,143440]
ggggttatagctcagttggtagagcgctgctttgcaagcaggatgtcag
cgggtcagtcgcttaactcca
1-4tRNA-Arg(tct)[155413,155487]
gactcgctagctcagttggatagagcaactgccttctaagcagtcggtcg
aagggtcagtccttcgcgagtcgc
1-5tRNA-Gly(tcc)[155539,155609]
gcgagtggtgtagcggtaacatgcgagcctccaagctctgtcacgg
gttcgatccccgtcactcgct
1-6tRNA-Asn(gtt)[155736,155808]
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tgggtcagtcaggtggaggag
1-7tRNA-Val(tac)[155812,155883]
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1-8tRNA-Ser(tga)[156157,156243]
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1-9tRNA-Pro(tgg)[156693,156766]
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1-10tRNA-Met(cat)[156959,157031]
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>MF370964.1 Pseudoalteromonas phage SL20, complete genome

1-1tRNA-Lys(ttt)c[2264,2333]
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1-2tRNA-Arg(tct)c[2335,2411]
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taagttcgaatcttacctcttgcca
1-3tRNA-Val(cac)c[41928,41998]
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gttccaatcctgaatgaaatc

>MF448340.1 Aeromonas phage AS-zj, complete genome

1-1tRNA-Thr(tgt)c[168891,168966]
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ccgttcgagtcggacattcggcacca
1-2tRNA-Pro(tgg)c[169245,169320]
cgggtattagcgcagttggtagcgcgtctggttgggaccagagggtcac
agggtcagtcctgtatcaccgacca

1-3tRNA-Tyr(gta)c[169475,169565]
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 1-4tRNA-Asn(gtt)c[169572,169647]
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 1-6tRNA-Met(cat)c[170108,170184]
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 ctggttcgagtcagtagggccacca
 1-7tRNA-Gly(tcc)c[170269,170344]
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 cggatcgttaccggctacccgctcca
 1-8tRNA-Leu(tag)c[170346,170429]
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 1-9tRNA-Arg(tct)c[170430,170506]
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 1-10tRNA-Leu(taa)c[171527,171619]
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>MF288919.1 Bacillus phage AaronPhadgers, complete genome

1-1tRNA-Asn(gtt)[33350,33423]
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 1-2tRNA-Glu(ttc)[33430,33506]
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 ggggttcgagccccctatgcgattcca
 1-3tRNA-Asp(gtc)[33511,33584]
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>MF288922.1 Bacillus phage Janet, complete genome

1-1tRNA-Asn(gtt)[32103,32177]
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 caggttcgattcctgcttggcacgt
 1-2tRNA-Trp(cca)[32939,33012]
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 gttcgattcgtagctcctgccca
 1-3tRNA-Ser(tga)[33014,33101]
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 taaaacctccgtgagttcaaatctcacacctcctcca

1-4tRNA-Asp(gtc)[33103,33176]
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 1-5tRNA-Leu(tag)[33321,33398]
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 tgtgggttcgaccccccttcggtatc
 1-6tRNA-Tyr(gta)[33405,33488]
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 >MF288921.1 Bacillus phage OTooleKemple52, complete genome
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 1-3tRNA-Ser(tga)[32254,32341]
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 1-5tRNA-Leu(tag)[32639,32716]
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 1-6tRNA-Tyr(gta)[32723,32806]
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 1-7tRNA-Ser(gct)[33719,33806]
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 >MF285619.1 Serratia phage 2050H1, complete genome
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 >MF498901.1 Bacillus phage Anthony, complete genome
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 1-2tRNA-Trp(cca)[32704,32777]
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 1-5tRNA-Tyr(gta)[33671,33754]
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 1-6tRNA-Ser(gct)[34667,34753]
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 >MF158040.1 Shigella phage Sf13, complete genome
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1-11tRNA-Thr(tgt)c[13525,13601]
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1-14tRNA-Lys(ctt)c[13771,13846]
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1-21tRNA-Asp(gtc)c[15620,15696]
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1-22tRNA-Asn(gtt)c[15860,15936]
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1-23tRNA-Met(cat)c[16020,16096]

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 >MF158041.1 Shigella phage Sf15, complete genome
 1-1tRNA-Cys(gca)c[67419,67494]
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 1-7tRNA-Gln(ttg)c[68700,68775]
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 gagggttcaagtccttcgggaatgcca
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>MF158043.1 Shigella phage Sf16, complete genome

1-1tRNA-Pro(tgg)[16042,16118]
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1-2tRNA-Glu(ttc)[16125,16202]
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1-3tRNA-Met(cat)[16290,16366]
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1-4tRNA-Asn(gtt)[16451,16527]
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1-5tRNA-Asp(gtc)[16691,16767]
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1-6tRNA-Lys(ttt)[17218,17293]
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1-8tRNA-Ile(gat)[17454,17528]
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1-10tRNA-Ser(tga)[18500,18589]
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1-12tRNA-Lys(ctt)[18927,19002]
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1-13tRNA-Ala(tgc)[19009,19084]
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1-15tRNA-Thr(tgt)[19172,19247]
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 1-18tRNA-Arg(acg)[19675,19751]
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 ggggtcgaatcctctattctgcacca
 1-19tRNA-Gln(ttg)[19760,19835]
 aggggattagttacaaggttaaaacctcggtcttgaaatcgaagaaga
 tggttcaattccatcatccccgcca
 1-20tRNA-Leu(taa)[19838,19916]
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 tatcggttcgaatccgatatggagtacca
 1-21tRNA-Gln(ctg)[19923,19998]
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 aggttcaaatccttatactgctgcca
 1-22tRNA-His(gtg)[20030,20106]
 gtggccttatcataaatggataatgacccatgctgtgaacatggctata
 cgggttcgattcccgtaggtcacccca
 1-23tRNA-Phe(gaa)[20114,20189]
 agctcaattagcttatatggttaaagcgcgtgtctgaaaaacatgagaac
 agggttcaaatcccgatgggctacca
 1-24tRNA-Ser(gct)[20942,21034]
 ggaagattaaccctaaaaggtaaggagcagtttgctaaactgccagtaa
 ccgagaaatcggcgtaccagttcaagctcgtatcttctcca
 1-25tRNA-Cys(gca)[21041,21116]
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 ggggtcgaagtccttccgatactcca

>MF158044.1 Shigella phage Sf18, complete genome

1-1tRNA-Pro(tgg)[66345,66424]
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 tcgagggttcaaatccttcaacggagacca
 1-2tRNA-Glu(ttc)[66431,66508]
 attcccgtagacaaataggtaaagtcaacacccttcaaggtgtggtt
 gagggttcaagtccttcgggaatgcca
 1-3tRNA-Met(cat)[66596,66672]
 tgcgggtatagagaaagggtgtctcacatgtctcattagcatgtatcgg
 taggttcgactcctacacccgcctcca
 1-4tRNA-Asn(gtt)[66757,66833]
 ggttaggaagcacataaggcatgtcgggtcggctgtaaccgaatggtac
 aggggtcgaatccctgactaaccgcca

1-5tRNA-Asp(gtc)[66997,67073]
ggttatgtagtttaactgggtcaaaatacctccctgtcacggaggatgatg
tgagttcgagtctcatcgtaaccgcca
1-6tRNA-Lys(ttt)[67524,67599]
ggaagtgtagcagaatggatgatgcggcagacttttaatctgacaggcgac
gggttcgaatccctccacttctacca
1-7tRNA-Met(cat)[67681,67757]
ggttcagtcgcagataaggtaatgcaagggttcataagccctatgaatg
tgggttcgattcccacctgaacctcca
1-8tRNA-Ile(gat)[67760,67834]
tgtgggttagcataaatggtaatgcaaacggctgataaccgttagaagag
ggttcgataccctcacctacaacca
1-9tRNA-Arg(tct)[68082,68158]
gcacccttagttcaaacggatagagcaacggcttcttaaaccgtcagtta
caggttcgaatcctgtaggggtgtgcca
1-10tRNA-Ser(tga)[68420,68509]
ggtaggtagcggctaataggaagccaaatagcttgaaaactattgccatt
gtagagatacggtaggggttcgactcctttatctaccgcc
1-11tRNA-Leu(tag)[68763,68839]
gcacctatagcccaattggaagaggcagcagacttagaatctgctcagtg
tgagttcgaatctctctaggtgtacca
1-12tRNA-Lys(ctt)[68847,68922]
gcaggtgtagcaaaatggttatgcggctgactcttaacagtaagacgat
gggttcaattccctccacctgtacca
1-13tRNA-Ala(tgc)[68929,69004]
ggggatgtagttacatgggtaaaacataagtttgcaaacttaagtaca
gggttcaattccctgcttctccacca
1-14tRNA-Gly(tcc)[69011,69085]
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ggttcgattccctctggatgctcca
1-15tRNA-Thr(tgt)[69092,69168]
gctgcttcgtataattggctattgcacatccctgtaaggatggagatg
caggttcgagtctgtgagcagacca
1-16tRNA-Val(tac)[69264,69338]
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ggttcaagtccttcagcgagtacca
1-17tRNA-Leu(caa)[69340,69417]
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gacggttcgaatccgtcttggaacacca
1-18tRNA-Arg(acg)[69596,69672]
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ggggttcgaatcctctattctgcacca
1-19tRNA-Gln(ttg)[69917,69992]
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tggttcaattccatcatccccgcca
1-20tRNA-Leu(taa)[69995,70073]
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tatcggttcgaatccgatatggagtacca
1-21tRNA-Gln(ctg)[70080,70155]
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aggttcaaatccttatactgctgcca
1-22tRNA-His(gtg)[70187,70263]
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cgggttcgattcccgtaggtcaccca
1-23tRNA-Phe(gaa)[70271,70346]
agctcaattagcttatatggttaaagcgcgtgtctgaaaacatgagaac
agggttcaaatcccgatgggctacca
1-24tRNA-Ser(gct)[71099,71191]
ggaagattaaccctaaaaggtaaggagcagtttgctaaactgccagtaa
ccgagaaatcggcgtaccagttcaagtctggatcttctcca
1-25tRNA-Cys(gca)[71198,71273]
gtgtcgggtgcagaaatggttatgtgcctgtctgaaaacaggttatga
gggttcgagtccttccgatactcca

>MF158046.1 Shigella phage Sf23, complete genome

1-1tRNA-Arg(tct)c[158397,158472]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
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1-2tRNA-Asn(gtt)c[158477,158551]
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ggttcgaatcctatcacgtccgcca
1-3tRNA-Tyr(gta)c[158556,158642]
ggggagtatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[158655,158729]
ggccctgtagctggaaggttcaagcaagcgactcataatcgccagatggt
ggttcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[158731,158806]
gctgatttagctcagtaggtagagcaactcacttgtaatgagaaggtcgg
cgggtcgattccgtcaatcagacca
1-6tRNA-Ser(tga)c[158812,158901]
ggaggcgtggcagagtgtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca
1-7tRNA-Pro(tgg)c[158903,158977]
ctccgtgtagctcagtttggtagagcgctgattgggatcaggaggtcc
aaggttcaaatccttgatggagac
1-8tRNA-Gly(tcc)c[158988,159061]
gcggatatcgataatggtattacctcagactccaatctgatgatgtga
gttcgattctcattatccgtcca

1-9tRNA-Leu(taa)c[159067,159153]
gcgagaatggtaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgtgggttcgagtccttctcgcacca
1-10tRNA-Gln(ttg)c[159154,159227]
tgggaattagccaagttggtaaggcactggattttgattccaggatgcaa
agggtcagtcctttattcccagc

>MF398190.1 Staphylococcus phage vB_SauM-fRuSau02, complete genome

1-1tRNA-Met(cat)c[14750,14821]
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ggttcgaatcctgcagagtcca
1-2tRNA-Trp(cca)c[37968,38039]
acacccttagtataattagtagtacaagggtctccaaaacccttagtctt
tgtgcaaatcaaagagggtgtg
1-3tRNA-Phe(gaa)c[38046,38118]
ggtttcttagctcagatggtagagcactagattgaagctctaggtgtcat
tggttcaaatccaatagaaacca
1-4tRNA-Asp(gtc)c[38124,38199]
tggctcattggtgtaactggtaacacactgccctgtcacggcagagagt
acgagttcagtcctctatgggtcgt

>MF479730.1 Aeromonas phage AS-gz, complete genome

1-1tRNA-Arg(tct)c[140918,140994]
ggtctcttagctcagttggatagagcagcggccttctaagccgcggtca
ttggtcaaatccaatagggactgcca
1-2tRNA-Met(cat)c[141563,141637]
ggccctgtagctagacggttaagcaggcggctcataaccgctcgtagta
ggttcgattcctaccagggtcacca
1-3tRNA-Met(cat)c[141840,141916]
tgcgatgtagaggagaggtcgtcctcgtcgggctcatatcccgaataca
gcggttcgaatccgctcatcgttcca
1-4tRNA-Asp(gtc)c[141929,142002]
ggagccatagtttatttggttaaaatagtcctcgtcacgggacagcacc
gagttcgatcctcgggtggctccgc
1-5tRNA-Ile(gat)c[142127,142202]
agtggattagctcagtaggtagagcactcgaccgataatcgagagcgc
tgggtcgatcccaataatccactacca
1-6tRNA-Trp(cca)c[142205,142280]
atgacattggtgttagcggtagcatgccggtctccaaaaccgtgcggcca
gggttcgaatccttgatgtcatgcca
1-7tRNA-Thr(tgt)c[142645,142720]
gccggttagctcatctggtagagcacagccttgaacgctggggtggt
ccgttcgagtcggacaatcggcacca
1-8tRNA-Pro(tgg)c[143356,143430]
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tgttcgattcaccgctgagacca

1-9tRNA-Gly(tcc)c[143676,143751]
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 cggttcgataccggctacccgctcca
 1-10tRNA-His(gtg)c[143764,143838]
 gtgaccttagtagtaatggtagctatcctggatgtgaccagggagtacg
 gggtcgaaccccgtaggtcacccca
 1-11tRNA-Lys(ttt)c[144128,144203]
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 gagttcgagtctcaggggatgcacca
 1-12tRNA-Tyr(gta)c[144761,144843]
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 1-13tRNA-Asn(gtt)c[144857,144939]
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 tctacgttggttcgactccaaccatcaccccca
 1-14tRNA-Ser(tga)c[145108,145201]
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 cgtaggaatacgggtccatccgttcgaatcgatattctcctcca
 1-15tRNA-Leu(taa)c[145393,145477]
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 cgggattgtgggttcgagtcctactactgcacca

>MF668280.1 Mycobacterium phage Phabba, complete genome

1-1tRNA-Ser(gct)[31867,31949]
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 1-2tRNA-Leu(cag)[32069,32152]
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 cggggcgtgagggttcaagtcctctccaggtac
 1-3tRNA-Leu(gag)[32157,32230]
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 gggttcgactcccgtccgagtac
 1-4tRNA-Leu(caa)[32273,32357]
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 caagggcgtgtgggttcgagtccttcatctac
 1-5tRNA-Pyl(cta)[32921,32991]
 gcggtatcgctacggcacgcaggtgacttctaaactcaccgtttccggg
 ttcgagtcgccgataaccgcgc
 1-6tRNA-Pro(tgg)[90881,90953]
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 gggttcgagtcctgtttcccgac
 1-7tRNA-Trp(cca)[90992,91064]
 ggggacttcgccaagtgggacggcagcggcttcaaaccgcatgagggg
 agttcgattcttcagtcctcgc
 1-8tRNA-Tyr(gta)[91068,91152]

gccgtgtatgcccaactgggtgttgggagctggctgtaaccagtggcct
tcgggacggcggagttcgattctctgacgcggcac
1-9tRNA-Met(cat)[91296,91370]
agcggggtagagcagttcggcagctcgctagcctcataagctagaggtcg
gaggttcaaactcctctcccggcac
1-10tRNA-Cys(gca)[91569,91641]
gcgtctatggcgaaatggtaacgcgctggattgcaaccccagttcctc
cgttcgattcggagtaggcgctc
1-11tRNA-Glu(ctc)[91700,91771]
gtgccaatggggtagtggttaacctcctgattctcagtcaggcatccga
gttcgatcctcggttggactgc
1-12tRNA-His(gt)[91773,91845]
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1-13tRNA-Gly(tcc)[91846,91917]
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1-14tRNA-Ala(ggc)[92072,92145]
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1-15tRNA-Phe(gaa)[92207,92279]
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ggttcgactccagaatgggcac
1-16tRNA-Val(cac)[92353,92424]
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1-17tRNA-Lys(ctt)[92436,92507]
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1-18tRNA-Gly(gcc)[92582,92653]
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gttcgattcccgcatagcactc
1-19tRNA-Asp(gtc)[92725,92801]
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1-20tRNA-Met(cat)[93169,93242]
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tggttcgagaccactcataggtac
1-21tRNA-Ile(gat)[93269,93343]
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agtgttcgattcactgagcaggtac
1-22tRNA-Ser(tga)[93390,93462]
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cggttcgagtccgatccctttcc

1-23tRNA-Arg(acg)[93491,93564]
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 aggttcgattcctcctcgggagac
 1-24tRNA-Thr(ggt)[93687,93758]
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 gttcgattccccgattcagctc
 1-25tRNA-Val(gac)[93764,93836]
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 1-26tRNA-Glu(ttc)[93980,94054]
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 1-27tRNA-Thr(tgt)[94171,94242]
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 1-28tRNA-Arg(cct)[94490,94563]
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 1-29tRNA-Gln(ttg)[94594,94667]
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 1-31tRNA-Lys(ttt)[95471,95546]
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 1-32tRNA-Gln(ctg)[122516,122587]
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 1-33tRNA-Asn(gtt)[122607,122679]
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 >DQ004855.1 Listeria bacteriophage P100, complete genome
 1-1tRNA-Met(cat)c[123712,123785]
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 ggttcgattcccaacggggcaatc
 1-2tRNA-Pro(tgg)c[124678,124752]
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 1-3tRNA-Arg(tct)c[125870,125940]
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 gttcgaatcctgctgaggact
 1-4tRNA-Gly(tcc)c[126187,126257]
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 gttcgaatccccctaccgct
 1-5tRNA-Asn(gtt)c[126326,126399]

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 1-6tRNA-Ser(tga)c[127020,127111]
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 ctggaatacaggtacaagggttcaatcccttaccttct
 1-7tRNA-Phe(gaa)c[127124,127195]
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 ggttcgatacctgcggactcca
 1-8tRNA-Lys(ttt)c[127201,127272]
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 ggttcgaatcctagtggtcca
 1-9tRNA-Trp(cca)c[127397,127470]
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 gggttcaagtcctactatccctgt
 1-10tRNA-Gln(ttg)c[127472,127544]
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 ggttcgaatccaactagaccagc
 1-11tRNA-Thr(tgt)c[127563,127634]
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 ggttcaagtcctactacaagca
 1-12tRNA-Tyr(gta)c[127717,127798]
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 ggggtccaaggttcgagtccttgatggcgca
 1-13tRNA-Leu(tag)c[128159,128243]
 tgccgagatggtggaactggtatacaggtagacttagaatctgctgtcc
 caaggatatgtgggttcgaatcccactctcggtat
 1-14tRNA-Asp(gtc)c[128709,128781]
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 ggttcgattccccttacgtgcgc
 1-15tRNA-Ile(gat)c[128885,128957]
 accagcatagcttaggaggcaaagcaaccgaccgataatcggtagtcctt
 ggttcaattccaagtgttggtac
 1-16tRNA-Ser(gct)c[129134,129220]
 ggagagttgtcagagaggcttaatgatacgggttgctaactcgtgtact
 agtaatagtagcaagggttcgaatcccttactctcct
 1-17tRNA-Cys(gca)c[129302,129372]
 gcgggtataaccaactggaaggtagtagactgcaaatctacgtatatgg
 gttcaattccattaccgct

>KX369583.1 Mycobacterium phage Littleton, complete genome

1-1tRNA-Ser(gct)[30420,30503]
 ggagggtgagcatcaggtgatgcagcgagattgctaataccgtacggtaa
 ccaccccgtgaggttcgaatcctcctccctccgc
 1-2tRNA-Leu(cag)[30696,30771]
 gctcccgtagcccaattggcaggaggcaccagattcaggatctgggcagt

gtgagttcgaatctcaccgggagtac
1-3tRNA-Leu(gag)[30891,30965]
gtctctgtaggcaaatcgaaaagcccatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[30966,31039]
gccgtggtaggcatctggcgagccgccgagttcaagtttcggtgttgc
gggttcgaatcccgcacggtac
1-5tRNA-SeC(tca)[67826,67922]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaaccgacggaaacatccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[91780,91852]
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ggttcgaatcctgtcaccgac
1-7tRNA-Trp(cca)[91869,91944]
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gggttcgaatcccgtaaccctgccca
1-8tRNA-Tyr(gta)[91946,92032]
gccgcacatcccgaactggtgttgggagcaggtgtaaccctgtggcct
tcgggacggtgaggttcgattcctcagtcggtacca
1-9tRNA-Pyl(cta)[93141,93213]
gcaccatttgctcaatggcagagcggcggttctaaccggtgagtgccg
gttcgattccggcatggtgcacc
1-10tRNA-Met(cat)[93363,93437]
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cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[93564,93635]
gcgccttggcggaatggctacgtgctcggtgcaaccgagttatcccg
gttcgactccgggagggcgctc
1-12tRNA-Glu(ctc)[93703,93774]
gtcccatgggtagtggttaaccctcctggttctcagccagcgctccga
gttcgatcctcggtgggagtc
1-13tRNA-His(gtg)[93776,93849]
gtggccgtagttcagccggtagaacgctgggttgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[94011,94085]
gggcctgtagctccaattggtagagcagcatcctgcaagatgacggctg
tcggttcgaatccgacctggtccac
1-15tRNA-Phe(gaa)[94275,94347]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgggcga
ggttcgagtcctcgtgtcggcac
1-16tRNA-Val(cac)[94353,94426]
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1-18tRNA-Glu(ttc)[94622,94698]
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1-19tRNA-Gly(tcc)[94778,94850]
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1-20tRNA-Thr(cgt)[94910,94984]
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1-21tRNA-Thr(tgt)[94985,95057]
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1-22tRNA-Thr(ggt)[95465,95537]
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1-23tRNA-Gly(gcc)[96860,96933]
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1-24tRNA-Asp(gtc)[96937,97009]
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1-25tRNA-Met(cat)[97069,97141]
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1-26tRNA-Ile(gat)[97147,97221]
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1-27tRNA-Arg(acg)[97315,97387]
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1-28tRNA-Val(gac)[97430,97502]
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1-29tRNA-Arg(cct)[97676,97749]
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1-31tRNA-Gln(ttg)[98290,98365]
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1-32tRNA-Arg(tct)[98369,98442]
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1-33tRNA-Lys(ttt)[98510,98586]
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1-34tRNA-Gln(ctg)[126425,126499]
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1-35tRNA-Asn(gtt)[126506,126581]
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>AP011616.1 Thermus phage phiYS40 DNA, complete genome

1-1tRNA-Thr(tgt)[52068,52143]
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1-2tRNA-Met(cat)c[120023,120099]
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taggttcgagtcctacacgccccacca
1-3tRNA-Arg(tct)c[120112,120188]
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>AB609718.1 Enterococcus phage phiEF24C-P2 DNA, complete genome

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1-2tRNA-Leu(tag)c[137677,137761]
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taatggacgtgtgggttcgactcccgcttctgca
1-4tRNA-Arg(tct)c[138482,138557]
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gggggttcgattccctccatctacgt
1-5tRNA-Trp(cca)c[139156,139229]
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gggttcaatcctctaccgattgt
1-6tRNA-Asp(gtc)c[139479,139554]
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>KM607001.1 Enterobacteria phage RB33, complete genome

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1-2tRNA-Met(cat)c[68388,68459]
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ggttcaattccaccaggcca
1-3tRNA-Thr(tgt)c[68461,68536]
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cggttcgattccgtcaatcagcacca
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 1-5tRNA-Pro(tgg)c[68627,68701]
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 aaggttcaaatcctgtatggagac
 1-6tRNA-Gly(tcc)c[68712,68785]
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 gttcgattctcattatccgtcca
 1-7tRNA-Leu(taa)c[68791,68877]
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 1-8tRNA-Gln(ttg)c[68878,68951]
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 aggttcgagtcctttattcccagc

>GQ303262.1 Mycobacterium phage LRRHood, complete genome

1-1tRNA-Ser(gct)[30760,30843]
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 ccaccccgtaggttcgaatcctcctccctccgc
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 gtgagttcgaatctcaccgggagtac
 1-3tRNA-Leu(gag)[31231,31305]
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 1-4tRNA-Leu(caa)[31306,31379]
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 1-5tRNA-SeC(tca)[67722,67818]
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 1-8tRNA-Tyr(gta)[91645,91731]
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 gttcgactccggcatggtgcacc

1-10tRNA-Met(cat)[93067,93141]
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1-11tRNA-Cys(gca)[93268,93339]
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1-12tRNA-Glu(ctc)[93344,93418]
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cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[93420,93493]
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1-14tRNA-Ala(tgc)[93655,93729]
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1-15tRNA-Phe(gaa)[93919,93991]
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ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[93997,94070]
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1-18tRNA-Glu(ttc)[94268,94344]
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1-19tRNA-Gly(tcc)[94424,94496]
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1-24tRNA-Asp(gtc)[96235,96307]
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 >KT365400.1 Mycobacterium phage ErnieJ, complete genome
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1-13tRNA-Phe(gaa)[92841,92913]
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1-17tRNA-Gly(tcc)[93344,93416]
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 ggttcgaatcctaagcgagcagcca
 1-32tRNA-Asn(gtt)[123210,123285]
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>JN849462.1 Vibriophage phi-pp2, complete genome

1-1tRNA-Ser(gct)c[174369,174457]
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 1-3tRNA-Leu(taa)c[175091,175167]
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1-5tRNA-His(gtg)c[175347,175423]
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gctcgattccactagggactacca
1-7tRNA-Gly(tcc)c[175820,175893]
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1-9tRNA-Arg(tct)c[176661,176736]
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 >KU686203.1 Synechococcus phage S-CAM8 isolate 0810PA29, complete genome
 1-1tRNA-Val(tac)[13494,13565]
 gcccgaatagctcagcggtagagcagcacctttacacggtgaatgtcggg
 ggttcgatcccctcttgggca
 1-2tRNA-Leu(taa)[17517,17603]
 tgggagtggtggcggaatcggtagacgcaccagacttaaaatctgttgacc
 aataaggtcgtgggagttcaagtctccctactcctat
 1-3tRNA-Thr(tgt)[17657,17729]
 gcctccgtagctcagtggttagagcaggcctttgtaaagctcaggtcga
 agttcaaattctgtcagaggctc
 1-4tRNA-Asn(gtt)[17734,17805]
 tcctccttagctcagcggtagagcgggtgactgttaataatgttcct
 ggttcgatcccaggagggggag

1-5tRNA-Arg(tct)[154712,154787]
 tgggtcagtagctcagatggatagagcaactgccttctaagcagtcggcc
 acaggttcgagtcctgtctgacccgt

>JF461087.1 Salmonella phage FO1a, complete genome

1-1tRNA-Pro(tgg)[23621,23697]
 ctctgttagctcagcttggtagagcgttccgtttggggcggttaaggccg
 gaggttcaagtcctccaacagagacca

1-2tRNA-Glu(ttc)[23705,23782]
 gtccagtagacaaaatggtaaagtcaccactcttcaaagtgatct
 gaggttcaaatcccttctggaacgcca

1-3tRNA-Met(cat)[23874,23950]
 tgcgggtatagagaaaggcgtctcacatgtctcattagcatggtatcgg
 caggttcgactcctgcacccgcctcca

1-4tRNA-Asn(gtt)[24034,24110]
 ggtaggaagcacataaggtatgtgcggtcgcctgtaaggaatggcac
 aggttcgaatccctgactaaccgcca

1-5tRNA-Tyr(gta)[24180,24267]
 gtgtcgttatcccgtagatggtagcgggtgggactgtaaatccctgtca
 ttgagactcggtaggttcgactcctacacggcacacca

1-6tRNA-Asp(gtc)[24273,24349]
 ggctatgtagttaactggagaaaatactcccctgtcacgggagatgatg
 tgagttcaagtctcatcgtacccgcca

1-7tRNA-Lys(ttt)[24778,24853]
 ggaagtgtagcagaatggtagtcggcagacttttaactctgacaggcgat
 gggttcgaatccctccacttctacca

1-8tRNA-Met(cat)[24858,24934]
 ggttcagtcgcagataaggaatgcaagggtctcataagccctatgaatg
 tgggttcgattcccatctgaacctcca

1-9tRNA-Ile(gat)[25431,25506]
 gctgtgaaagcacatatggatgtgcattcggctgataaccgaaaggcaga
 aggttcgaatccttctcacagtacca

1-10tRNA-Ser(tga)[26551,26640]
 ggtaggtagcggctaattggtagccaaactgtcttgaaaacagttgccact
 gtagagatacggtaggggttcgactccttacttaccgcc

1-11tRNA-Leu(tag)[26897,26974]
 gggagattgatggaattggtaaacctatctcgcttagaacgagatgttt
 gaggttcgaatcccttgtctcctacca

1-12tRNA-Lys(ctt)[26982,27057]
 gcaggtgtagcaaaatggttatgcggctgactcttaacagtaagacgat
 ggggtcaatccctccacctgtacca

1-13tRNA-Ala(tgc)[27064,27139]
 tgggtcatagtttatatggttaaaattcagttttgcaaacttggaact
 gagttcaattctcagtgactccacca

1-14tRNA-Gly(tcc)[27146,27220]

gcatccatagtttaaacgggaaaattacagtcttccaaactgaggttgag
 ggttcgattccctctggatgctcca
 1-15tRNA-Thr(tgt)[27650,27726]
 gctgcttcgtataattggctattacacatcccttgtaaggatggaaatg
 caggttcaagtctgtgagcagcacca
 1-16tRNA-Val(tac)[27822,27896]
 actcgttagtttatatggtaaaacatcacccctacaagatgaagaaaaa
 ggttcaagtcctttagttagtacca
 1-17tRNA-Leu(caa)[27898,27975]
 gtccagtatcccaattggcagaggatgcaagctcaaacctgtattagt
 gacggttcgaatccgtcttggaaacacca
 1-18tRNA-Arg(acg)[28090,28165]
 gcaggattagttcaaatggatagagcaacagtctacgaagctgtaatatg
 ggggtcgaatcccttatcctgcgcca
 1-19tRNA-Gln(ttg)[28750,28825]
 aggggattagtttacaagggttaaacctcggctttgaaatcgaagaagt
 tggttcaattccaacatcccccgcca
 1-20tRNA-Leu(taa)[28828,28906]
 gctccattactccaattggcagagaggccagactaaaatctgtgttatg
 tatcggttcgaatccgatatggagtacca
 1-21tRNA-Gln(ctg)[28912,28987]
 agcggtatagcataactggcaatgcagcagtctctgaagctgcctatta
 aggttcaaatccttatgccgctgcca
 1-22tRNA-His(gtg)[29019,29094]
 gtggccttatcataaatggtaatgacccatgctgtgaacatggctatac
 ggggttcaaatcccgtaggtcacccca
 1-23tRNA-Phe(gaa)[29101,29176]
 agtccaagtagcttatatggttaaagcgctgtctgaaaaacatgagaag
 agggttcaaatcccactggactacca
 1-24tRNA-Ser(gct)[29930,30022]
 ggaagattaaccctaaaaggtaaggagcagtttgctaaactgccagtag
 ctgagaaatcggtgtaccagttcaagtcggtatcttctcca
 1-25tRNA-Cys(gca)[30027,30102]
 gaatccgtgacagaaatggatatgtgcctgtctgcaaaacaggtttataa
 ggggttcaagtccttcggattctcca

>KC862296.1 Pseudomonas phage P3_CHA, complete genome

1-1tRNA-Asn(gtt)[86082,86158]
 tccgttcggtccctcaaggtgaggagctgactgttaatcaagacgtgc
 ctggttcgattccaggagcggagcca
 1-2tRNA-Tyr(gta)[86216,86303]
 ggaggggtggcagagcggtttaatgcaccggactgtaaatccggcgtccg
 accgggcatcgctggttcaaatccagccccctccacca
 1-3tRNA-Gln(ttg)[86505,86581]
 aggcgtgtggcgaaggtttaacgcactggactttgactccagcatttg

tgggttcgaatcccaccacgtctgcc
 >AP014715.1 Edwardsiella phage PEi26 DNA, complete sequence
 1-1tRNA-Asp(gtc)c[75896,75971]
 ggacctatagtttcagcggttaaaatactcccctgtcacgggagcgtcac
 gatttcgaatctcgttaggtccgcca
 1-2tRNA-His(gtg)c[76195,76270]
 gtggcctaattcagttggtagaattcaagattgtattctttagtcat
 gggttcaagtcccataggtcacccca
 1-3tRNA-Asn(gtt)c[76304,76379]
 ggatgtgtagctcagttggtagagcggtcgcccgttaagtattgtccg
 cgggtcgaatccgtgcacatccgcca
 1-4tRNA-Lys(ttt)c[76925,77002]
 aggacgttagctcagctggtagagcactcgactttaatcgagatgtcg
 atgggttcaaaccctcacgtcctacca
 1-5tRNA-Met(cat)c[78068,78144]
 ggccctatagctcaattggtagagcggcgcataactggtaggttt
 ccggttcaagtcggatggggccacca
 1-6tRNA-Leu(taa)c[78610,78698]
 gcgggtgtggcggtattggcagtacgcatggcacttaaatgccataggg
 ctttagctcttacgagttcgaatctcgtcacccgtacca
 >HQ634191.1 Cyanophage Syn10 genomic sequence
 1-1tRNA-Asn(gtt)c[129314,129387]
 ttctcttagctcagcggtagagcgattgactgttaatcaattggctccc
 tgggtcgatcccaggaaggggagt
 1-2tRNA-Ala(tgc)c[129462,129534]
 ggggaattagctcagttggtagagcgcctgctttgcaagcaggatgtcag
 cgggtcgagtcgcgtattctcca
 1-3tRNA-Thr(tgt)c[129537,129611]
 gccaaactagctcagctggatagagcaacggtttgtaaaccgtagggtca
 acggttcaagtcggtgtttggctc
 1-4tRNA-Leu(taa)c[129799,129885]
 tgggagcgtggcggaatcggtagacgcaccagacttaaatctgttgaga
 attaatctcgtgggggtcaattcccccgctcctat
 1-5tRNA-Val(tac)c[133568,133639]
 gggcgaatagctcagcggtagagctactcgtttacaccgagtcggtcggg
 gttcgatcccctcttcgcca
 1-6tRNA-Arg(tct)c[164477,164552]
 tgggtcagtagctcagctggatagagcaactgccttctaagcagtcggtc
 acaggttcgaatcctgtctgaccgt
 >JF974292.1 Cyanophage S-SSM2 genomic sequence
 1-1tRNA-Arg(tct)c[81382,81454]
 gggtcagtagctcagttggatagagcatcgacttctaagcgttggtcgg
 gggttcaaatccctcctgacccg
 >HQ634190.1 Cyanophage Syn2 genomic sequence

1-tRNA-Pyl(cta)[98023,98097]

tgggtcagtagttcagcggatagaacaacgctcttctaagcgtgtgtcgtg
ggggttcgattccctcctgacccgt

1-2tRNA-Val(tac)[127132,127204]

gggcgaatagctcagcggtagagctactcgtttacaccgagtcggtcgagg
ggttcgatccctccttcgcccac

1-3tRNA-Leu(taa)[131657,131743]

tgggagtggtggcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggggtcaagccccccactcctat

1-4tRNA-Thr(tgt)[131745,131816]

gcccttatagctcagtggttagagcaacgctttgtaaagcgtaggtcgtt
ggttcaaatccgactgggggct

1-5tRNA-Ala(tgc)[131819,131892]

ggggaattagctcagttggttagagcgctcgttgaagcaggatgtcag
gagttcgagtctcctattctccac

1-6tRNA-Asn(gtt)[131897,131968]

tcctcttagctcagcggtagagcgggtgactgttaatcaattggtcct
ggttcgatcccaggaaggggag

>HQ317391.1 Cyanophage S-SSM6a genomic sequence

1-tRNA-Gly(tcc)[39715,39785]

gcggatgtagtttaatggtaaaatacagagttccaacctctgtcctca
gttcgattctgagtatccgct

1-2tRNA-Ile(tat)[104572,104644]

gggactatcgcatattggtaaatgccctctgcttataacggagtgaaccg
agttcaattctcggtagtcctac

1-3tRNA-Thr(tgt)[104647,104722]

gccactttagctcagttggatagagcaacgcatgttaatgcgtaggtcgt
tcggttcaagtcgacaaagtggtcc

1-4tRNA-Arg(tct)[104725,104800]

gactcaatagctcagttggatagagcaactgccttctaagcagtcggtcgt
taggttcgagtcctacttgagtcgcc

1-5tRNA-Leu(taa)[104802,104887]

tgggagtggtgggaatcggtagacacaccagacttaaaatctgttgaca
gcaatgtcgtgggggttcaagccccccactcccat

>HQ316603.1 Cyanophage S-SSM6b genomic sequence

1-tRNA-Leu(taa)c[75473,75554]

gggagcatggcggaatcggtagacgcatcgacttaaaatccgctgaggt
aactcgtgggggttcaagccccctgctccta

1-2tRNA-Val(tac)c[80679,80750]

gggagattagctcagcggtagagctattcgtttacaccgaatcggtcatt
ggttcaagtccaatatctccca

1-3tRNA-Arg(tct)c[113704,113778]

tggtccagtagctcagcggaaagagcaactgccttctaagcagttggcca
taggttcaaatcctatctggatcgt

>HQ317291.1 Synechococcus phage S-RIM2 R9_2006, complete genome

1-1tRNA-Val(tac)[13782,13853]
gcccgaatagctcagcggtagacacctcgttacaccgagattgtcggg
ggttcgatcccctcttcgggca
1-2tRNA-Leu(taa)[17779,17865]
tgaggatagggcggaatcggtagacgcaccagactaaaattgttgagg
gttaacctcgtgagagttcaagtctctactcctat
1-3tRNA-Thr(tgt)[17922,17994]
gccccctagctcagtggttagagcagggtttgtaaagctcaggtcgca
agttcaaatctgtcaggggctc
1-4tRNA-Ala(tgc)[17997,18069]
ggggaattagctcagttggtagagcgctgcttgcaagcaggatgtcag
cggttcgagtcgctattctcca
1-5tRNA-Asn(gtt)[18116,18189]
ttcctcagtagctcagcggcagagccatcgactgtaatcgattggctgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161226,161300]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>MF158045.1 Shigella phage Sf22, complete genome

1-1tRNA-Arg(tct)c[14055,14130]
cggggcatagctcagaaggaagagcaaggaccttctaagtcctaggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-His(gtg)c[14135,14210]
gtggccgtagttcagttggtagaactcgagattgtgattctcgtagtc
gggttcgactcccatcggtcacccca
1-3tRNA-Asn(gtt)c[14325,14399]
ggatgtgtagctcaatggcagagcgatcgctgtaagcgattgggtata
ggttcaaatcctatcacgtccgcca
1-4tRNA-Tyr(gta)c[14404,14490]
ggggagttatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-5tRNA-Met(cat)c[14503,14577]
ggcctgtagctggaaggttcaagcaagcgactcataatgccagatggt
ggttcaattccaccagggccacca
1-6tRNA-Thr(tgt)c[14579,14654]
gctgatttagctcagtaggtagagcaactcactgtaatgagaaggtcgg
cgggttcgattccgtcaatcagacca
1-7tRNA-Ser(tga)c[14660,14749]
ggaggcgtggcagagtggtttaatgcaccggtctgaaaaccggcagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca
1-8tRNA-Pro(tgg)c[14751,14825]
ctccgtgtagctcagtttggtagagcgctgatttgggatcaggaggtcc
aaggttcaaatccttgatggagac

1-9tRNA-Gly(tcc)c[14835,14908]
gcggatatcgataatggtattacctcagactccaatctgatgatga
gttcgattctcattatccgctcca
1-10tRNA-Leu(taa)c[14914,15000]
gcgagaatggtaaattggtaaaggcacagcacttaaatgctcggaat
gatttccttgggttcgagtcacacttctcgacca
1-11tRNA-Gln(ttg)c[15001,15074]
tgggaattagccaagttggaagcatagcacttgactgctagatgcaa
aggttcgagtcctttattcccagc

>MF498773.1 *Aeromonas* phage AS-szw, complete genome

1-1tRNA-Thr(tgt)c[62300,62375]
gccgaattagctcatctgtagagcacagccttgtaacgctgggggtgt
cgttcgagtcggacattcggcacca
1-2tRNA-Pro(tgg)c[62655,62730]
cggtagtagcgcagttgtagcgcgtctggttgggaccagagggtcac
aggttcgagtcctgtatcaccgacca
1-3tRNA-Tyr(gta)c[62885,62975]
ggatgttcggctacgatggcggtagcggcgactgtaaatccgttccc
tctgggtaaacaagttggtcgaatccaacaacatccacca
1-4tRNA-Asn(gtt)c[62982,63058]
tggcgtgtaactcagtaggttagagtggcggactgtaatccgtatgtcg
tgggttcgaatcccacctcgccagcca
1-5tRNA-Met(cat)c[63060,63137]
agcgggggtggagaagtcaggagttctcaccagactcattatctggaaatc
ggtgggtcaaataccacccccgcttcca
1-6tRNA-Met(cat)c[63520,63596]
ggccccttagctcagtaggttagagcagccgactcataatcggttggtca
ctggttcgagtcagtaggggcccacca
1-7tRNA-Gly(tcc)c[63681,63756]
gcgggtaagggtgttatggatacatgcaagcctccaagttgagtagac
cggatcgttaccggctacccgctcca
1-8tRNA-Leu(tag)c[63758,63841]
cgggatgtggtgaaattggcagacacactagattaggttctagcgccat
aggcgtgacggttcgagtcggtccatcccgacca
1-9tRNA-Arg(tct)c[63842,63918]
gcgctgttagctcagttggatagagcaacgttcttctaaagcgtgggtca
ctggttcgaatccagtacggcgacca
1-10tRNA-Leu(taa)c[64986,65078]
gcgtgagtggcgaagttggtgaaacgcacgagcttaaatccgatact
gcataatggcacatcgtgggttcgattcccacctcacgacca

>MF974178.1 *Pseudomonas* phage YS35, complete genome

1-1tRNA-Thr(tgt)c[68775,68849]
gccctttaagcatttatggtgatgcaccggcttgaacccggcgaattc
tgttcaagtcaggaatggggcacca

1-2tRNA-His(gtg)c[69036,69110]
gtggagattgtgcagcccgatgctgcctccggtgtgacccggtgtt
ggggttcgagtccccgcctccaacc

1-3tRNA-Glu(ttc)c[69171,69246]
gcagttatagattaaatggataaatgccagactttcaatctggtgtcc
gggttcgalccccggttaactgctcca

1-4tRNA-Phe(gaa)c[69253,69328]
gcgtctgaagctaactaggtagaagcaccgggttgaaattccggaggact
tggatcgttaccaagcgggcgcacca

1-5tRNA-Gly(tcc)c[69391,69467]
gcgggtttcgtatagctcgttattattcttggtccaccaagagact
agggttcgaatccctaagccccgcacca

1-6tRNA-Pro(tgg)c[69475,69552]
ctctcgtagctcagctcgttagagtgctggatttgaatccgaaggctc
gaaggttcaaatacctccgggtgacca

1-7tRNA-Asn(gtt)c[69615,69691]
tccgtacggcccatcaaggcgatggggtcggctgtaaccgaaacgcgc
taggttcgattcctaggtacggagcca

1-8tRNA-Cys(gca)c[69701,69776]
ccctcgttgcccgagaggatcaggcagcagattgcaaatactgccatacat
cgggtcaaatacgcatacaggctcca

1-9tRNA-Met(cat)c[70015,70087]
agcgtaagactggctggagctgtcactcggctcataaccgagcacaagt
ggttcgattccacctctcgctac

1-10tRNA-Asp(gtc)c[70188,70266]
ggccccattagctcagctcggactagagcaagcccctgtctagggaaggt
cgtcgggttcgaatccgacatgggtcgcca

1-11tRNA-Ile(gat)c[70276,70351]
agccgggtagctcaattggtagagcaccgaccgataatcgggcggttga
agggtcaagtccttctctggctacca

1-12tRNA-Leu(tag)c[70562,70646]
ggccctgtggtggaattggtatacacatcagtccttagaaactgacgccga
gaggattgagggttcaagtcctccggggccacca

1-13tRNA-Arg(tct)c[71465,71540]
gctcgtatagcgaatggaaagcgcaacggctcttaagccgtaaggctc
agggttcgagtcctagtagcagcgcca

1-14tRNA-Gln(ttg)c[71746,71819]
tgccgcttcgttcaatggtaggacgccagacttgaatctggagatgatg
gttcgatcccatcagcggtcgcca

>MF787246.1 Lactobacillus phage LpeD, complete genome

1-1tRNA-Gly(tcc)c[136332,136402]
gcggatatggtgtagtggaacatagctggcctccaaccagttgtcgccg
gttcaaaccgactatccgct

1-2tRNA-Thr(tgt)c[136557,136629]

tgccctcgtagttcagtggtaaaatacctgtttgtacacaggggtcact
 agtccgattctagtaggcat
 1-3tRNA-Pro(tgg)c[136631,136704]
 caggatataggccagtttggtaggtcgtcggcttgaaccgagaagtcg
 caagttcgaatcttgcctatcctga
 1-4tRNA-Trp(cca)c[136724,136798]
 tatcaaagtaagcttaactggaaaactgttgactccaaatccgattta
 taggttcgaatcctatctttgatgt
 1-5tRNA-Phe(gaa)c[137006,137078]
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 aggtccgaatcctatcgggcaca
 1-6tRNA-Leu(caa)c[137092,137165]
 ggacctgtaatccaattggcagagatagcagattcaaatctgtaaaatg
 ttggttcgaatccaactaggtcca
 1-7tRNA-Leu(taa)c[137376,137452]
 tgccctcttagtccaatctggcagagacaatagacttaaaatctatcaag
 tgtgggtccgaatcccacagagggtat
 1-8tRNA-Lys(ttt)c[137514,137585]
 ttatccttagctcaggtggtagagcggcgtcttttagcgtatgtcacc
 ggttcgactccgtaggataaa
 1-9tRNA-Leu(tag)c[137717,137792]
 tgccctcgtagtccaattggcagagatagtggaattagaatccatccagt
 gtgagttcgagtctcaccgagggtat
 1-10tRNA-Ser(tga)c[137796,137885]
 tggataggtataaagtaattggtaccctctggtcttgaaaaccagaaac
 gattaaaagcgtttgtaggttcgagtcctaccctatccgt
 1-11tRNA-Asn(gtt)c[137915,137988]
 ttgctcagtagttcagcggtagaatgtctgattgttactcagaaggctgt
 tgggtccgaatccaacctgagcagt
 1-12tRNA-Ser(gct)c[138674,138763]
 tggaaagttgacagagtgggtgattgtggctccctgctaaggagttaatc
 gtgttaagcgggtcgggggttcaaaccctcactttccat
 1-13tRNA-Ile(tat)c[138772,138863]
 agtcctgtagcataatggtagtcacccggtttatacccggcataaggct
 ccagattaggtacgatataggttcgaatcctatcaggacta
 1-14tRNA-Arg(cct)c[139328,139402]
 tgtactagtaatctaattggataaaatgcttccctcctaaggaagtcttc
 ccagttcgagtctgggctagtgc
 1-15tRNA-Arg(tct)c[139626,139699]
 gcgtccttagctcaactggatagagcaacggccttctaagccgtaggttg
 tgagttcaagtctcacaggacgca

>MF805809.1 Escherichia phage vB_EcoM_PHB05, complete genome

1-1tRNA-Met(cat)[51277,51352]
 ggttccatagctcactgacgagagcgcacacctataagtgtcgagggca

gggattgtaaccctgggaaccacca
1-2tRNA-Leu(taa)[51384,51469]
gcaagtgtggtggaattggtgatacacattgtgctaaaacgcaacgctt
aaatgattgaggggtcgaatccctccactgcacca
1-3tRNA-Ser(tga)[51797,51886]
ggaaggtaggcgcgagcggcgcaaccagggttgaaccctggcccatg
tagcgatacggatgatggtcgactccattatcttctcca
1-4tRNA-Ser(gct)[52066,52151]
ggtagattggtgaaatggtagccacaacagttgctaactgtcgtcgga
aacggcgtgtaggttcaagtctacatctaccgcca
1-5tRNA-Lys(ttt)[52278,52353]
acatcgtagctcagttggtagagcaaggggttttaactccaaggtcga
aggttcgaatccttcacgatgtacca
1-6tRNA-Tyr(gta)[52359,52445]
gtaggtatcgcatagcggcaattgctggagactgtaaattcctgccctt
cggggcttcgttggttcgagtcgaactacctgcacca
1-7tRNA-Asn(gtt)[52453,52537]
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>MF919495.1 Mycobacterium phage Bigswole, complete genome

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>MF919499.1 Mycobacterium phage Daffodil, complete genome

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1-9tRNA-Met(cat)[93362,93436]
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cgtgttcgaatcacgccaccgccac
1-10tRNA-Cys(gca)[93563,93634]
gcgccttggcggaatggctacgtgctcggtgcaacccgagttatcccg
gttcgactccgggagggcgctc
1-11tRNA-Glu(ctc)[93639,93713]
ggtccgttgagtagatggatatctgccaccctctcaaggtggagatca
cgggttcaagtcccgtacggactgc
1-12tRNA-His(gtg)[93715,93788]
gtggccgtagttcagccggtagaacgctgggttgtgatccagtcgtcga
gggttcgagtcctccggtcaccc
1-13tRNA-Ala(tgc)[93950,94024]
gggcctgtagctccaattggtagagcagcatccttgaagatgacggctg
tcggttcgaatccgacctggtccac
1-14tRNA-Phe(gaa)[94214,94286]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgggccga
ggttcgattcctcgtgtcggcac
1-15tRNA-Val(cac)[94292,94365]
gtccgttagctcagctggaagagcgctcggtccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-16tRNA-Lys(ctt)[94484,94556]
gccttcgtagctcagtggtagagctgtcgccctctaagcgataggtcgtt
ggttcgaatccagccgggggcac
1-17tRNA-Glu(ttc)[94561,94637]
ggtcgggtcgggtcgtcgttatggccagtcggattttcactccggacatt
cgcgggttcaattcccgtcccgatcgc
1-18tRNA-Gly(tcc)[94717,94789]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[94849,94923]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc

cggttcaggtccggacagcagcccc
 1-20tRNA-Thr(tgt)[94924,94996]
 gcctctgtgtccagcggcacggacatccgccttgaagcggaggacccc
 cgttcgatccgggtagaggctc
 1-21tRNA-Thr(ggt)[95056,95128]
 gctgggttagctcagtggttagagcgttccttggatgggaaagggccgg
 ggttcaatccccgactcagctc
 1-22tRNA-Gly(gcc)[96451,96524]
 gcgaaggtagctcagctggcagagcgcaccttgccaagtgagggtcgc
 gggatcgtaacccgttcttcgctc
 1-23tRNA-Asp(gtc)[96528,96600]
 ggcctgtagctcagaggaagagcggcgtctgtcgaatcgagggtcgcg
 gtatcgtaatccgtcagggtcgc
 1-24tRNA-Met(cat)[96660,96732]
 gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
 ggttcgattccagggtgaggtac
 1-25tRNA-Ile(gat)[96738,96812]
 gcctgttagcggactggctcgtccgatccaagctgataactggcgtaagc
 ggtgttcgattaccgagcaggtac
 1-26tRNA-Arg(acg)[96906,96978]
 gcctctatggtccaacggatatgacgccggtctacggaaccggagatgcg
 tgttcgattcgcgctaggggcac
 1-27tRNA-Val(gac)[97021,97093]
 gtccgttagctcaggggtagagcgcctgctcgacacgcaggaggaccga
 ggttcgaaacctcgcatggacac
 1-28tRNA-Arg(cct)[97267,97340]
 gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
 aggttcgaatcctctcggaggcac
 1-30tRNA-Gln(ttg)[97881,97956]
 tgggggtatgggtgcaatctggcagtcgcccggaacttgactccggaggt
 gcaggttcgagtcctgctaccccatc
 1-31tRNA-Arg(tct)[97960,98033]
 gccctgttagctcagtggaagagcggcgagcttctacctcgggccgg
 gattcgaatctctccaggggcac
 1-32tRNA-Lys(ttt)[98101,98177]
 gggccggtatcttagtctgggtcaaagaagtggacttttaatccgcgcgc
 gtgggttcgaatcccacccggcccacc
 1-33tRNA-Gln(ctg)[126216,126290]
 tgctcgttggtgtaactggcaacactacggactctgactccgtcattta
 ggttcgaatcctaagcgagcagcca
 1-34tRNA-Asn(gtt)[126297,126372]
 tggggtgtccgttaatcaggcaaacgagcggactgttaatccggccctgc
 aggttcgaatcctgccacccagcca

>MF919513.1 Mycobacterium phage Koguma, complete genome

1-1tRNA-Ser(gct)[28941,29024]
ggagggtgagcatcaggtgatgcagcgagattgctaatacccgtacggtaa
ccaccccgtgaggttcgaatcctcctccctccgc
1-2tRNA-Leu(cag)[29217,29292]
gtctccctagcccaattggcaggaggcaccagattcaggatctgggcagt
gtgagttcgaatctcaccgggagtac
1-3tRNA-Leu(gag)[29412,29486]
gtctctgtaggcaaatcgaaaagccgcatcttgagggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[29487,29560]
gccgtggtaggcatctggcgagccgccgagttcaagttcgggtttgc
gggttcgaatcccgcacggtac
1-5tRNA-SeC(tca)[65924,66020]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgt
ggccggagaatcgaccgaaacatccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[89638,89712]
cggggtgtagttcagtttgaagagcgttggttgggaccaagttgtcg
caggttcgaatcctgtcaccgac
1-7tRNA-Trp(cca)[89727,89797]
gggtctgtgcacagggtgcccagcgtctccaaagccgaagcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Pyl(cta)[90989,91061]
gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-9tRNA-Met(cat)[91211,91285]
agcgggtgtagcagctaggtagctcgccgggctcataaccggaggacg
cgtgttcgaatcacgccaccgcccac
1-10tRNA-Cys(gca)[91412,91483]
gcgcctttggcggaatggctacgtgctcggtgcaacccgagttatcccg
gttcgactccgggaggcgctc
1-11tRNA-Glu(ctc)[91488,91562]
ggtccgttgagtagatggatatctgccaccctctcaagtgagatca
cgggttcaagtcccgtacggactgc
1-12tRNA-His(gtg)[91564,91637]
gtggccgtagttcagccggtagaacgctgggttgtatccagtcgtcga
gggttcgagtcctccggtcaccc
1-13tRNA-Ala(tgc)[91799,91873]
gggcctgtagtccaattggtagagcagcatccttgaagatgacggctg
tcggttcgaatccgacctggtccac
1-14tRNA-Phe(gaa)[92063,92135]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtgccga
gggttcgattcctcgtgtcggcac
1-15tRNA-Val(cac)[92141,92214]
gtccgttagctcagctggaagagcgtcgggtccacaccgagaggccgc

aggttcgatccctgcaatggacac
1-16tRNA-Lys(ctt)[92334,92407]
gccttcgtagctcagttggtagagctctgcctcttaagcgagatgtcgc
aggttcgacccctgccggaggcac
1-17tRNA-Glu(ttc)[92412,92488]
ggtcgggtcggctcgtggtatggccagtcggattttcactccggacatt
cgcgggttcaattcccgtcccgatcgc
1-18tRNA-Gly(tcc)[92568,92640]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-19tRNA-Thr(cgt)[92700,92774]
gctgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cggttcgagtccggacagcagcccc
1-20tRNA-Thr(tgt)[92775,92847]
gcctctgtgtccagcggcacggacatccgccttgaagcggaggacccc
cgttcgatccgggtagaggctc
1-21tRNA-Thr(ggt)[92907,92979]
gctgggttagctcagtggtagagcgttcctctggtatgggaaaggcccg
ggttcaatccccgactcagctc
1-22tRNA-Gly(gcc)[94724,94799]
gcggttatagctcagcctggccagagcatcacgttgccaacgtgaacgtc
gcgggttcaaatcccgtagccgctc
1-23tRNA-Asp(gtc)[94813,94885]
ggcctgtagctcagaggaagagcgcgggtctgtcgaatcggaggtcgcg
gtatcgtaatccgtcagggtcgc
1-24tRNA-Met(cat)[94945,95017]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-25tRNA-Ile(gat)[95023,95097]
gcctgttagcggactggctcgtccgatccaagctgataactggcgtaagc
ggtgttcgattcaccgagcaggtac
1-26tRNA-Arg(acg)[95191,95263]
gcctctatggtccaacggatatgacgccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-27tRNA-Val(gac)[95306,95378]
gtccgtgtagctcagtggtagagcgcctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-28tRNA-Arg(cct)[95552,95625]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-30tRNA-Gln(ttg)[96166,96241]
tggggtatggtggcaatctggcagtcgcccggaacttgactccggaggt
gcaggttcgagtcctgtacccatc
1-31tRNA-Arg(tct)[96245,96320]

gcccttgtagctcagtggaacagagcggcgagcttctacctcgcgggcccgg
gagttcgaatctctccagggcacca
1-32tRNA-Gln(ctg)[125283,125357]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattctt
ggttcgaatccagggcgagcaacca
1-33tRNA-Asn(gtt)[125364,125439]
tggggtgccgttaatcaggcaaacgagcggactgttaatccgtccctgc
aggttcgaatcctgccaccccagcca

>MF919527.1 Mycobacterium phage Phox, complete genome

1-1tRNA-Ser(gct)[31442,31525]
ggagggtgagcatctggtgatgcaggggtcctgctaaggccctacggatt
cacaccgtgagtttcgattactcctccctccgc
1-2tRNA-Leu(cag)[31622,31698]
gccctgctgagcaaacaggcaaacgctgccgattcagagtcgggtcatt
tccgggttcgactcccgggcagggtac
1-3tRNA-Leu(gag)[31818,31892]
gtctctgtaggcaaatcgaaaagcccatcttgaggggtggtgcgtg
cgggttcgactcccgcagagacac
1-4tRNA-Leu(caa)[31893,31966]
gccgtggtaggccatctggcgagccgccagttcaagtttcggtgtttgc
gggttcgaatcccgcacgggtac
1-5tRNA-SeC(tca)[68756,68852]
attctggcactggtggcgagcccaccggcgagcttcaagctgtcgct
ggccggagaaccgaccggaacatccgttcaacgcgacccagggcc
1-6tRNA-Pro(tgg)[92518,92592]
cggggtgtagttcagtttgaagagcgttggtttgggaccaagatgtcg
caggttcgaatcctgtcaccgccgac
1-7tRNA-Trp(cca)[92607,92677]
gggtctgtgcacagggtgcccgcggtctccaaagccgaaggcgggggtt
cgattccctccaggcctgcca
1-8tRNA-Tyr(gta)[92679,92765]
cccgtacatgcccaactggtgttgggagcaggctgtaaccctgtggcct
tcgggacggtgaggttcgattcctcagtcgggacca
1-9tRNA-Pyl(cta)[93879,93951]
gcaccatttgctcaatggcagagcggcggttctaaaaccgtgagtgccg
gttcgactccggcatggtgcacc
1-10tRNA-Met(cat)[94101,94175]
agcgggtgtagagcagctaggtagctcgccgggtcataaccggaggacg
cgtgttcgaatcacgccaccgccac
1-11tRNA-Cys(gca)[94302,94373]
gcgccttggcggaatggctacgtgctcggtcgaacccgagttatcccg
gttcgactccgggaggcgctc
1-12tRNA-Glu(ctc)[94378,94452]
ggtccgttgagtagatggatatctgccaccctctcaagtgagatca

cgggttcaagtcccgtacggactgc
1-13tRNA-His(gtg)[94454,94527]
gtggccgtagttcagccggtagaacgctgggttgatcccagtcgtcga
gggttcgagtcctccggtcaccc
1-14tRNA-Ala(tgc)[94689,94763]
gggcctgtagctccaattggtagagcagcatcctgcaagatgacggctg
tcggttcgaatccgacctgggtccac
1-15tRNA-Phe(gaa)[94953,95025]
gccgtcatagctcagttggtagagcactggcctgaaaaccagtggtccga
ggttcgattcctcgtgtcggcac
1-16tRNA-Val(cac)[95031,95104]
gtccgttagctcagctggaagagcgtcggccacacccgagaggccgc
aggttcgatccctgcaatggacac
1-17tRNA-Lys(ctt)[95224,95297]
gccttcgtagctcagttggtagagctctgcctttaagcgagatgtcgc
aggttcgacccctgccggaggcac
1-18tRNA-Glu(ttc)[95302,95378]
ggtcgggtcggctcgtggtatggccagtcggatttctactccggacatt
cgcgggttcaattcccgtcccgatcgc
1-19tRNA-Gly(tcc)[95458,95530]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-20tRNA-Gly(tcc)[95630,95702]
gcgggtgtggccgaatggctcaggcaccagattccactctggctacgca
ggttcgattcctgtcatccgctc
1-21tRNA-Thr(cgt)[95762,95836]
gtgctgtagctcacctggcagagcgtcggcgtcgtatcccgaaggcatc
cgggttcgagtcggacagcagcccc
1-22tRNA-Thr(tgt)[95837,95909]
gcctctgtgtccagcggcacggacatccgccttgtaagcggaggacccc
cgttcgatccgggttagaggctc
1-23tRNA-Thr(ggt)[95969,96041]
gtcgggttagctcagtggtagagcgttcctctggtatgggaaaggccgg
ggttcaatccccgactcagctc
1-24tRNA-Gly(gcc)[97364,97437]
gcgaaggtagctcagctggcagagcggccaccttgccaaggaggagtcgc
gggatcgtaacccgttcttcgctc
1-25tRNA-Asp(gtc)[97441,97513]
ggcctgtagctcagaggaagagcggcgtctgtcgaatcgagggtcgcg
gtatcgtaatccgtcagggtcgc
1-26tRNA-Met(cat)[97573,97645]
gcctcactagctcattggtagagccgctcgtcataacgtgcaggtacct
ggttcgattccagggtgaggtac
1-27tRNA-Ile(gat)[97651,97725]

gcctgttagcggactggctcgtccgatccaagctgataacttggcgtaagc
ggtgttcgattcaccgagcaggtac
1-28tRNA-Arg(acg)[97819,97891]
gcctctatggtccaacggatatgacccggtctacggaaccggagatgcg
tgttcgattcgcgctaggggcac
1-29tRNA-Val(gac)[97934,98006]
gtccgttagctcaggggtagagcgcctgctcgacacgcaggaggaccga
ggttcgaaacctcgcatggacac
1-30tRNA-Arg(cct)[98180,98253]
gcctctgtagctcaacggacagagcaacgcggtcctaacgcggtggctgg
aggttcgaatcctctcggaggcac
1-32tRNA-Gln(ttg)[98794,98869]
tggggtatggtggcaatctggcagtcgcccggaattgactccggaggt
gcaggttcgagtcctgctaccccatc
1-33tRNA-Arg(tct)[98873,98948]
gccctttagctcagtgagacagagcggcgagcttctacctcgccggccgg
gagttcgaatcctctccaggggcacca
1-34tRNA-Gln(ctg)[125841,125915]
tgctcgttggtgtaactggcaacactacggactctgactccgtcattctt
ggttcgaatccagggcgagcaacca
1-35tRNA-Asn(gtt)[125922,125997]
tggggtgtccgttaatcaggcaaacgagcggactgttaatccgtccctgc
aggttcgaatcctgccaccccagcca

>KX349249.1 Synechococcus phage S-RIM2 isolate Np_20_0912, complete genome

1-1tRNA-Val(tac)[13794,13865]
gcccgaatagctcagcggtagagcacctcgtttacaccgagattgtcggc
ggttcgatcccgtcttcgggca
1-2tRNA-Leu(taa)[17791,17877]
tgggagtatggcggaatcggtagacgcaccagacttaaaattgttgagg
gttaacctcgtgagagttcaagtcctctactcctat
1-3tRNA-Thr(tgt)[17934,18006]
gccccgtagctcagtggtagagcaggcctttgtaaagctcaggtcgca
agttcaaatcttgtcaggggctc
1-4tRNA-Ala(tgc)[18009,18081]
ggggaattagctcagttggtagagcgcctgtttgcaagcaggatgtcag
cggttcgagtcgcgtattctcca
1-5tRNA-Asn(gtt)[18128,18201]
ttcctcagtagctcagcggcagagccatcgactgttaatcgattggctgt
aggttcaaatcctacctggggagt
1-6tRNA-Arg(tct)[161241,161315]
tgggtcagtagctcagcggatagagcaaccgccttctaagcggttggtcg
caggttcaaatcctgcctgacccgt

>AF234173.1 Enterobacteria phage P1 mod1902::IS5 c1.100 rev dmt(del)MB mutant, complete genome

1-1tRNA-Asn(gtt)[69029,69104]

gatggtgtagctcagcggttagagcggtgactgttaatcaacgggtcga
tggttcaatccatccaccatcgcca
1-2tRNA-Thr(tgt)[69107,69182]
gccggttagctcagttggttagagcgctgccttgaagcaggatgtcag
cggttcgagtccttaatcgccacca
1-3tRNA-Met(cat)[70614,70689]
ggcccttagctcagtggttagagctggcgactcataatcgacggtcac
cggttcaagtccgtaggggccacca

>KX147096.1 Serratia phage vB_Sru_IME250, complete genome

1-1tRNA-Tyr(gta)c[65698,65781]
gtgagagtggcagagcggtcgattgcgggggactgtaaatcccttctgaa
aggcgcggtggttcgaatccatcctctcacacca
1-2tRNA-Asn(gtt)c[66666,66741]
gatggtgtagttcagtcggtagaacggcggtctgttaaatcgtatgtcgc
aggttcaagtcctgtcaccatcgcca
1-3tRNA-Trp(cca)c[66751,66826]
atctccttggtctagcggctatgatgccagcctcaaagccgtgcgaccc
aggttcgagtcctggaggggatgcca
1-4tRNA-Met(cat)c[67068,67143]
ggctcctgtagctcagtggttagagcagtcgactcataatcgattggtcat
tggttcaaaaccaatcaggatcacca

>KY073123.1 Serratia phage vB_Sru_IME250, complete genome

1-1tRNA-Tyr(gta)c[65698,65781]
gtgagagtggcagagcggtcgattgcgggggactgtaaatcccttctgaa
aggcgcggtggttcgaatccatcctctcacacca
1-2tRNA-Asn(gtt)c[66666,66741]
gatggtgtagttcagtcggtagaacggcggtctgttaaatcgtatgtcgc
aggttcaagtcctgtcaccatcgcca
1-3tRNA-Trp(cca)c[66751,66826]
atctccttggtctagcggctatgatgccagcctcaaagccgtgcgaccc
aggttcgagtcctggaggggatgcca
1-4tRNA-Met(cat)c[67068,67143]
ggctcctgtagctcagtggttagagcagtcgactcataatcgattggtcat
tggttcaaaaccaatcaggatcacca

>GU071092.1 Prochlorococcus phage P-SSM2, complete genome

1-1tRNA-Asn(gtt)[164089,164176]
ttgtgagtgacgaaattggtaaactgtcagtcctgtttaactgatgttc
ctggcgggactgaaggttcgactccttcctcacagt

>KM606995.1 Enterobacteria phage RB5, complete genome

1-1tRNA-Arg(tct)c[67416,67491]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctgggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-Asn(gtt)c[67496,67570]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattggttata

ggttcgaatcctatcacgtccgcca
 1-3tRNA-Tyr(gta)c[67575,67661]
 ggggagttatcccgtagaggtagcgggtggactgtaaatccattgtcat
 tgcgactcgggtggttcgactccatcactccccacca
 1-4tRNA-Met(cat)c[67671,67745]
 ggccctgtagctggaaggtcaagcaagcgcactcataatcgccagatggt
 ggttcaattccaccaggccacca
 1-5tRNA-Thr(tgt)c[67747,67822]
 gctgatttagctcagtaggtagagcacctcacttgtaatgaggatgtcgg
 cggttcgattccgtcaatcagcgcca
 1-6tRNA-Ser(tga)c[67828,67917]
 ggaggcgtggcagagtggtttaatgcaccggtcttgaaccggcagtcg
 ctccggcgactcataggttcaaatcctatcgctccgcca
 1-7tRNA-Pro(tgg)c[67919,67993]
 ctccgtgtagctcagtttgtagagcgctgattgggatcaggaggtcc
 aaggttcaaatccttgatggagac
 1-8tRNA-Gly(tcc)c[68004,68077]
 gcggatatcgataatggcattacctcagacttccaatctgatgatgtga
 gttcgatttcattatccgctcca
 1-9tRNA-Leu(taa)c[68083,68169]
 gcgagaatggtaaattggtaaaggcacagcacttaaatgctgcggaat
 gatttccttggtgggtcagtccttctcgacca
 1-10tRNA-Gln(ttg)c[68170,68243]
 tgggaattagccaagttgtaaggcactggatttgattccagatgcaa
 aggttcgagtcctttattccagc

>KF148616.1 Campylobacter phage CP8, complete genome

1-1tRNA-Tyr(gta)c[38499,38584]
 gtaagcatatgggtaattggtaaccaccagactgtaaatctggcgtctc
 ttggcactgcaggttcgagtcctgctgttacacca
 1-2tRNA-Arg(tct)c[38595,38671]
 ctccatgtagctcagctggatagagcaagaatcttctaagttctaggtcg
 ggtgttcaaatcactccatggaggcca
 1-3tRNA-Asn(gtt)c[38681,38756]
 tgcggattagcacagtggtagtgcaatcgactgtaaatcgatggggtcat
 aggttcgaatcctatatccgtagcca
 1-4tRNA-Met(cat)c[39027,39101]
 agcagagtgcgcagtagtagcgtgctgggtcataaccagatgtcgta
 ggtgcaaatcctacctctgtaacca
 1-5tRNA-Leu(taa)c[39107,39184]
 tggacatgtagcgctcaagtggtagagcagccgacttaaatctgcagat
 tgatggttcgatcccatccatgtccaac
 1-6tRNA-Met(cat)c[39189,39263]
 gggcgagtagctcaatggtagagcaaccggctcataaccggttggttata
 ggttcgattcctatttcgccacca

>KF156339.1 *Synechococcus* phage S–MbCM25, complete genome

1–1tRNA–Leu(taa)[17219,17305]

tgggagtggtggcggaatcggtagacgcaccagacttaaaatctgttgaga
attaatctcgtgggagttcaagtcctcctactcccat

1–2tRNA–Thr(tgt)[19060,19132]

gcctccgtagctcagttggtagagcagggtctttgtaaagctcaggtcgca
agttcaaatctgtcagaggctc

1–3tRNA–Asn(gtt)[19137,19209]

tcctctatagctcagttggtagagcaggtagctgttaatcacctgtccc
tggttcgagtcagggtggaggag

1–4tRNA–Arg(tct)[158217,158291]

tgggtcagtagctcagcggatagagccacgcacttctaatacggttggtcg
cagggttcgattcctgcctgactcgt

>KJ586794.1 *Listeria* phage LMTA–34, complete genome

1–1tRNA–Met(cat)c[41701,41774]

ttgtcccgtagctagaaggctcgagcaaggagctcataactcctcggtttg
ggttcgattcccaacggggcaatc

1–2tRNA–Pro(tgg)c[42667,42741]

cagggtgtagctcagtttggttagagtacccgctttggagacgggaagtc
gtagggtcgaatcctaccaccttga

1–3tRNA–Arg(tct)c[43859,43929]

gtccttatggtgtagtggtatgcacaagggttctactcccttagcgcgg
gttcgaatcctgctgaggact

1–4tRNA–Gly(tcc)c[44176,44246]

gcggttagtagtataagggtagtagtaccgaaggttccaacctgtagtgggg
gttcgaatccccctaccgct

1–5tRNA–Asn(gtt)c[44315,44388]

gtgtccttaactcagaggtcagagtgccgtcctgtaagtcggaagtcgc
tggttcaaatccagcaggatacgc

1–6tRNA–Ser(tga)c[44626,44717]

ggaaggttggtagagcttggtatacgtagcttgaaactagcttacc
cttgaatacagggtacaagggttcgaatcccttaccttct

1–7tRNA–Phe(gaa)c[44730,44801]

gtagtctagctgagatggattagcgttgcttgaaaagcaagagaggca
ggttcgatacctgcggactcca

1–8tRNA–Lys(ttt)c[44807,44878]

ggagttatggtgaaatggctatcactgcgggtttttaccccggtattcta
ggttcgaatcctagtggtcca

1–9tRNA–Tyr(gta)c[45202,45283]

gtgtcattcgcatagtggaattgcaggggactgtaactccccctcccttc
ggggtccaaggttcgagtccttgatggcgca

1–10tRNA–Leu(tag)c[45644,45728]

tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
caaggatatgtgggttcgaatcccactctcggtat

1-11tRNA-Asp(gtc)[46194,46266]
gtgcgtatgatataatggctattatactcgactgtctatcgagaaatagg
ggttcgattccccttacgtgcgc
1-12tRNA-Ile(gat)[46370,46442]
gccagcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
ggtcaattccaagtgttggtac
1-13tRNA-Ser(gct)[46619,46705]
ggagagttgtcagagaggcttaatgatacgggttgctaactcgttgact
agtaatagtagcaagggttcgaatcccttactctcct
1-14tRNA-Cys(gca)[46785,46855]
gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
gttcaattcccattacccgct

>KJ591605.1 Listeria phage LMTA-57, complete genome

1-1tRNA-Cys(gca)[110865,110935]
gcgggtataaccaactggaaaggtagtagactgcaaatctacgtatatgg
gttcaattcccattacccgct
1-2tRNA-Ser(gct)[111015,111101]
ggagagttgtcagagaggcttaatgatacgggttgctaactcgttgact
agtaatagtagcaagggttcgaatcccttactctcct
1-3tRNA-Ile(gat)[111278,111350]
gccagcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
ggtcaattccaagtgttggtac
1-4tRNA-Asp(gtc)[111454,111526]
gtgcgtatgatataatggctattatactcgactgtctatcgagaaatagg
ggttcgattccccttacgtgcgc
1-5tRNA-Leu(tag)[111992,112076]
tgccgagatggtggaactggtatacacggtagacttagaatctgctgtcc
caaggatatgtgggttcgaatcccactctcgggat
1-6tRNA-Tyr(gta)[112437,112518]
gtgtcattcgcatagtggaattgcaggggactgtaactcccctcccttc
ggggtccaaggttcgagtccttgatggcgca
1-7tRNA-Lys(ttt)[112842,112913]
ggagttatggtgaatggctatcactgcgggttttaccctgtattcta
ggttcgaatcctagtggtcca
1-8tRNA-Phe(gaa)[112919,112990]
gtagtcctagctgagatggattagcgcttgcttgaaaagcaagagaggca
ggttcgatacctgcggactcca
1-9tRNA-Ser(tga)[113003,113094]
ggaaggttggtagagcttgtaatacgtagcttgaaaactagcttacc
cttgaatacagggtacaagggttcgaatcccttactctcct
1-10tRNA-Asn(gtt)[113332,113405]
gtgtccttaactcagaggtcagagtgccgtcctgttaagtcggaagtcgc
tgggtcaatccagcaggatacgc
1-11tRNA-Gly(tcc)[113474,113544]

gcgggtatagtataaggtagtacccaaggtttccaacatgtagtggg
 gttcgaatccccctaccgct
 1-12tRNA-Arg(tct)[113791,113861]
 gtccctatggtagtagtgatgcacaagggttttactcccttagcgcgg
 gttcgaatcctgctgaggact
 1-13tRNA-Pro(tgg)[114979,115053]
 cagggtgtagctcagtttggttagagtacccgctttggagacgggaagtc
 gtaggttcgaatcctaccacctga
 1-14tRNA-Met(cat)[115946,116019]
 ttgtcccgtagctagaaggctcgagcaaggagctcataactcctcggttg
 ggttcgattcccaacggggcaatc
 >KJ586795.1 Listeria phage LMTA-94, complete genome
 1-1tRNA-Cys(gca)[100460,100530]
 gcgggtataaccaactggaaaggtagtagactgcaaactacgtatatgg
 gttcaattcccattaccgct
 1-2tRNA-Ser(gct)[100610,100696]
 ggagagttgtcagagaggcttaatgatacgggttgctaactcgtgtact
 agtaatagtagcaagggttcgaatcccttactctcct
 1-3tRNA-Ile(gat)[100885,100957]
 accgcatagcttagtaggcaaagcaaccgaccgataatcggtagtcctt
 ggttcaattccaagttggtac
 1-4tRNA-Asp(gtc)[101062,101134]
 gtgcgtatgatataatggctattatactcgactgtctatcgagaagtagg
 ggttcgattccccttacgtgcgc
 1-5tRNA-Leu(tag)[101600,101684]
 tgccgagatgggtggaactggatatacaggtagacttagaatctgctgtcc
 caaggatatgtgggttcgaatcccactctcggtat
 1-6tRNA-Tyr(gta)[102045,102126]
 gtgtcattcgcatagtggaattgcaggggactgtaactcccctcccttc
 ggggtccaaggttcgagtccttgatggcgca
 1-7tRNA-Lys(ttt)[102450,102521]
 ggagttatggtgaaatggctatcactgcgggtttttaccccggtattcta
 ggttcgaatcctagtggtcca
 1-8tRNA-Phe(gaa)[102527,102598]
 gtagtcctagctgagatggattagcgttgcttgaaaagcaagagaggca
 ggttcgatacctgcggactcca
 1-9tRNA-Ser(tga)[102611,102702]
 ggaaggttggttagagcttggttaatacgtagcttgaaaactagcttacc
 cttagaatacagggtacgaggttcaaatcccttacctcct
 1-10tRNA-Asn(gtt)[103223,103296]
 gtgtccttaactcagaggtcagagtgccgtcctgttaagtcggaagtcgc
 tggttcaaacccagcaggatacgc
 1-11tRNA-Gly(tcc)[103365,103435]
 gcgggtatagtataaggtagtacccaaggtttccaacatgtagtggg

gttcgaatccctctacccgct
1-12tRNA-Arg(tct)[103693,103763]
gtccttatggtgtagtggatgcacaaggatttctactcccttagcgcgg
gttcgaatcctgctgaggact
1-13tRNA-Pro(tgg)[104882,104956]
cagggtgtagctcagtttggtagagtacccgcttggagacgggaagtc
gtaggttcgaatcctaccacctga
1-14tRNA-Met(cat)[105850,105923]
ttgtcccgtagctagaaggctcgagcaaggagctcataactcctcggtttg
ggttcgattcccaacggggcaatc

>KT919972.1 *Vibrio* phage phi-Grn1, complete genome

1-1tRNA-Ser(gct)c[37085,37173]
ggagatatggtctaaaggtatgacagcaccctgctaagggtcggacgtt
aatagcgttctctgagttcgaatctcagtatctccgcca
1-2tRNA-Leu(caa)c[37614,37690]
gcccaactagtagccaattggcagaggcactagttcaaacactaggagttc
cgagttcgaatctcgggttgggcacca
1-3tRNA-Leu(taa)c[37807,37883]
gcgcacttggccaattggcagaggcatgaggctaaaatctcagggatg
cggttcgaatccgcccgtgcgtacca
1-4tRNA-Cys(gca)c[37886,37959]
gctcgaatcgataatggaagtatgacggattgcaaatccgcaggtcagg
gttcgattccctgttcgagctcca
1-5tRNA-His(gtg)c[37972,38048]
gtggcagtggtgaagtggaaataccccgggttgtattccggaagatg
cgggttcgatccccgtctgtcacccca
1-6tRNA-Val(tac)c[38440,38513]
ggtcccttagtataatggcagtagctcttttacacagagaagaagtg
gctcgattccactagggactacca
1-7tRNA-Gly(tcc)c[38520,38593]
gcgggtatgatgtaatggtagcatgacgtcctccaagtcgttcgtctcg
gttcgagtcctgtatcccgctcca
1-8tRNA-Met(cat)c[38783,38858]
ggtgatgtagctcaagtggcagagcaacgcttcatacggcgtaagatcc
gatttcgagtatcgggtgtcacctcca
1-9tRNA-Arg(tct)c[39383,39458]
gcgctgtagctcaattggaagacacgtcccttctaaggatggggttat
gagttcgaatctcatacggcgtgccca
1-10tRNA-Thr(tgt)c[40180,40254]
gctcctgaagcattgatggcgtgcagcggcttctaaccgcagaattc
ggttcgattccgaacgggagcacca
1-11tRNA-Gln(ttg)c[40384,40457]
tggggattggtgtaaaggcagcataacgtactttgaatgcgttggtatca
gttcgaatctgttatccccagcca

1-12tRNA-Asp(gtc)c[40477,40552]
ggagccgaggtgtaaaaggtgcatgtctccctgtcacggagaaggtagc
gggttcgaaacccgtcggttccgcca
1-13tRNA-Asn(gtt)c[40622,40697]
gcttcattaactcagttggtagagtgtctgactgttaatcagagagtcgt
tggttcagagtcgaacatgaagcgcca
1-14tRNA-Asn(gtt)c[40699,40773]
gggtgtgtaactcagagcagagtagcaagctgttaactgcaagtcgag
atttcgaaattctccacgcccgcga
1-15tRNA-Trp(cca)c[40849,40922]
aggggcatgatgtaaaggcagcatgacggattccaaacccgttcgttaga
gttcgaatctctatgcccctgcca
1-16tRNA-Ile(gat)c[40929,41002]
agtcccttagctcaacggtagagcgtgcgaccgataatcgcttgtaaga
gttcgattctcttagggactacca
1-17tRNA-Ser(tga)c[41066,41151]
gaaagattctggtagcggcaacggcttgaaaaccgtcggtcaccggga
ggtagatttagggttcgaatccctagttctccgcca
1-18tRNA-Met(cat)c[41176,41249]
ttgcgggtagagcagtggtcagctcgtgagtttcataagctcaagtcg
ttggttcgaatccagcccacgca
1-19tRNA-Tyr(gta)c[41351,41436]
ggagcgtacgtctcaaggtgagacaggggactgtaatccctgaccctta
acgggtagagaggttcgattcctctacgtccacca
1-20tRNA-Glu(ttc)c[41443,41517]
tctcccgtggactaacggtaggtcatcacccittcaagtgaaagtcgcg
agttcgaatctcgtcgggagaacca
1-21tRNA-Lys(ttt)c[41581,41657]
gcgtcggtagctcatcatggaagagcaggagcttttaactctcaggtgt
ctggttcgagtcagggcgcgctacca
1-22tRNA-Lys(ttt)c[41669,41742]
gggtctatgatgtaacggtagcatatgggacttttaatccctcagtaga
gttcgaatctctgtggaccacca
1-23tRNA-Phe(gaa)c[41749,41823]
gcacccttagcttatcaggaagcggcgattgaagtcgcgagtcgtc
ggttcgattccgaggggtgcacca
1-24tRNA-Leu(tag)c[41825,41902]
gcgcaagtagcccaatctggcagaggcactggcttagaaaccagaagtt
aagagttcgaatctcttctgcgtacca
1-25tRNA-Arg(acg)c[42449,42524]
gcccgattagctcaattggaagagcagcgccctacgaaggcgaaggttac
aagttcgaatctgtattgggtgcca
1-26tRNA-Pro(tgg)c[42533,42609]
ccgtgactagctcaatctggtagagtactccgtttggggcggaagtta

agcgttcgaatcgctgtcacggacca
1-27tRNA-Pro(tgg)c[42619,42692]
cgggacgtggcgtaaaggtagcgttcgcttgggagcatgtggaaga
gttcgagtctcttcgtcccacca
1-28tRNA-Met(cat)c[44869,44946]
ggccctatagctcaacacggtagagcaaccgactcataatcggtaggtt
acaggttcgagtcctgttggggcacca

>KT919973.1 *Vibrio* phage phi-ST2, complete genome

1-1tRNA-Ser(gct)c[98264,98352]
ggaagcatggtctaaaggtatgacagcaccctgctaaggtgcggacgtt
aatagcgttctctgggttcgattcccagtgcttccgcca
1-2tRNA-Leu(caa)c[98521,98597]
gcccactagttccaattggcagaggcactagttcaaacactaggagttc
cgagttcgaatctcgggttgggcacca
1-3tRNA-Leu(taa)c[98714,98790]
gcgcacgtgggtccaattggcagaggcatgaggcttaaaatctcagggatg
cggttcgaatccgccgtgcgtacca
1-4tRNA-Cys(gca)c[98793,98866]
gctcgaatcgataatggaagtatgacggattgcaaatccgcaggtcagg
gttcgattccctgttcgagctcca
1-5tRNA-His(gtg)c[98879,98955]
gtggcagtggtgaagtggaaataccccgggtgtgattccggaagatg
cgggttcgatccccgtctgtcacccca
1-6tRNA-Val(tac)c[99371,99444]
gttccttagtataatggcagtagctctctttacacagagaagaagtg
gctcgattccactagggactacca
1-7tRNA-Gly(tcc)c[99451,99524]
gcgggtatgatgtaatggtagcatgacgtcctccaagtcgttcgtctcg
gttcgagtcggtgtacccgctcca
1-8tRNA-Met(cat)c[99714,99789]
ggtgatgtagctcaagtggcagagcaacgcttcatacggcgtaagatcc
gatttcgagtatcgggtgcacctcca
1-9tRNA-Arg(tct)c[100314,100389]
gcgctgttagctcaattggaagagcacgtcccttctaaggatggggttat
gagttcgaatctcatacggcgtgcca
1-10tRNA-Thr(tgt)c[100780,100855]
gccctgatagcacaactggcagtgagctcacttgtaatgagcaggttcg
cgggttcgaatccgtgcagggcacca
1-11tRNA-Gln(ttg)c[100983,101056]
tggggattggtgtaaaggcagcataacgtactttgaatgcgttggtatca
gttcgaatctgttatcccagcca
1-12tRNA-Asp(gtc)c[101076,101151]
ggagccgaggtgtaagtgttgcatgtctccctgtcacggagaaggtagc
gggttcgaaaccgtcgggtccgcca

1-13tRNA-Asn(gtt)c[101220,101295]
 ggatcgctaactcaatggtagagtgctgcctgtaagcgaggagttcc
 gattcagatctcggcggtccgcca
 1-14tRNA-Trp(cca)c[101371,101444]
 aggggcatgatgtaaaggcagcatgacggattccaaacccgttcgtaga
 gttcgaatctctatgcccctgcca
 1-15tRNA-Ile(gat)c[101451,101524]
 agtcccttagctcaacggtagagcgtgcgaccgataatcgcttggttaaga
 gttcgattctcttagggactacca
 1-16tRNA-Ser(tga)c[101589,101674]
 gagagattctggtagcggcaacggcttgaaaaccgtcggtcaccggga
 ggtgatgttagggtcgaatccctagtcttccgcca
 1-17tRNA-Met(cat)c[101987,102060]
 ttgccccgtagagaagtggtcatctcgtcggctcataagccggagaacg
 ctggttcgaatccagccccacgca
 1-18tRNA-Tyr(gta)c[102162,102247]
 ggagcgtagctctcaagtgagacaggggactgtaaatccctgaccctta
 acgggtagagaggttcgattcctctacgtccacca
 1-19tRNA-Glu(ttc)c[102254,102328]
 tctccgtggactaacggtaggtcatcacccttcaaggtgaagtgcgcg
 agttcgaatctcgtcgggagaacca
 1-20tRNA-Lys(ttt)c[102392,102468]
 gcgtcggtagctcatcatggaagacagggagctttaactctcaggtgt
 ctggttcgagtccagggcggcgtagcca
 1-21tRNA-Phe(gaa)c[102480,102554]
 gcacccttagcttatcaggaagcggcggttggaagtcgagtcgtc
 ggttcgattccgaggggtgcacca
 1-22tRNA-Leu(tag)c[102556,102632]
 gcgcaagtagcccaattggcagaggcactggtcttagaaaccagaagtta
 agagttcgaatctcttctgcgtacca
 1-23tRNA-Arg(acg)c[102987,103062]
 gcccgattagctcaattggaagagcagcgccctacgaaggcgaaggttac
 aagttcgaatctgtattgggtgcca
 1-24tRNA-Pro(tgg)c[103071,103147]
 ccgtgactagctcaatctggttagagtactccgttggggcggagaagtta
 agcgttcgaatcgcttgacggacca
 1-25tRNA-Pro(tgg)c[103157,103230]
 cgggacgtggcgtaaaggtagcgttcgttgggagcatgtggttaaga
 gttcgagtctctcgtcccgacca
 1-26tRNA-Met(cat)c[105074,105151]
 ggcctatagctcaacttggttagagcaaccgactcataatcggtaggtt
 acaggttcgagtcctgttgggtcacca

>KU130127.1 Pseudomonas phage vB_PsyM_KIL2, complete genome

1-tRNA-Ser(tga)[15801,15895]

ggcttggttaagccgagatggcctagcggcagcggtcttgaaaaccgaagg
 ttcacggaagtggacgtgtgagttcgagctcacccaatccgcca
 1-2tRNA-Met(cat)[15902,15978]
 tggccttagcataattggttaatgcaatcaactcataattgataagata
 cgagttcaagtctcgtggggccaacca
 1-3tRNA-Arg(tct)[16549,16625]
 atctccatagctcaactggacagagcaagggtcttctacaccaaggttg
 agggttcaagtccttctggggatacca
 1-4tRNA-Thr(tgt)[16960,17036]
 gcccgtttagctccaattggtagagcgctgtcttgaatcaggatgtt
 gcgggtcgaatccgtaaatgggcacca
 1-5tRNA-Arg(acg)[17136,17210]
 agtcgcttggccgattggattaggcaaaggtccacgaagcctgctagagt
 ggttcgactccactagtactacca
 1-6tRNA-Asn(gtt)[17451,17536]
 tggcgtgtaagcataatggtagcactccgctgttaacggagcttccga
 aaggtcttttaggttcgagtcctaccgcgtcagcca
 1-7tRNA-Pro(tgg)[17804,17877]
 ctctcgaagcgttacggtagcgtactctgttgaacgaagtggcggtg
 gttcgactccacccgaggtgacca
 1-8tRNA-Leu(tag)[17938,18021]
 gcccttgtgatgaaatggtagacgtgccgggttagattccggtgtcgaa
 aggcgtgtcgggttcgagtcgactgagggcacca
 1-9tRNA-Gly(tcc)[18508,18582]
 gcgggtataactcagaggcagagtgacgcctccaagctgttcgtcggg
 atttcgaaattccctatccgctcca

>KU130128.1 Pseudomonas phage vB_PsyM_KIL3, complete genome

1-1tRNA-Ser(tga)[16011,16105]
 ggcttggttaagccgagatggcctagcggcagcggtcttgaaaaccgaggg
 ttcacggaagtggacgtgtgagttcgagctcacccaatccgcca
 1-2tRNA-Met(cat)[16112,16188]
 tggccttagcataattggttaatgcaatcaactcataattgataagata
 cgagttcaagtctcgtggggccaacca
 1-3tRNA-Arg(tct)[16759,16835]
 atctccatagctcaactggacagagcaagggtttctacaccaaggttg
 agggttcgaatccttctggggatacca
 1-4tRNA-Thr(tgt)[17460,17535]
 gccggaatagcacaattggtagtcagtcgccttgaagcgaaggttga
 gggttcaagtcctttttcggcacca
 1-5tRNA-Arg(acg)[17725,17799]
 agtcgcttggccgattggattaggcaaaggtccacgaagcctgctagagt
 ggttcgactccactagtactacca

>KU130131.1 Pseudomonas phage vB_PsyM_KIL3b, complete genome

1-1tRNA-Ser(tga)[16018,16112]

ggcttggttaagccgagatggcctagcggcagcggcttgaaaaccgaggg
ttcacggaagtggacgtgtgagttcagctcacccaatccgcca
1-2tRNA-Met(cat)[16119,16195]
tggccttagcataattggttaatgcaatcaactcataattgataagata
cgagttcaagtctcgtggggccaacca
1-3tRNA-Arg(tct)[16766,16842]
atctccatagctcaactggacagagcaagggtttctacaccaaggttg
agggttcgaatccttctggggatacca
1-4tRNA-Thr(tgt)[17467,17542]
gccggaatagcacaattggtagtcagtcgccttgtaagcgaaggttga
gggttcaagtcctttttcggcacca
1-5tRNA-Arg(acg)[17732,17806]
agtcgcttggccgattggattaggcaaaggtccacgaagcctgctagagt
ggttcgactccactagtactacca

>KU130129.1 Pseudomonas phage vB_PsyM_KIL4, complete genome

1-1tRNA-Ser(tga)[15590,15684]
ggcttggttaagccgagatggcctagcggcagaggtcttgaaaaccgaagg
ttcacggaagtggacgtgtgagttcagctcacccaatccgcca
1-2tRNA-Met(cat)[15691,15767]
tggccttagcataattggttaatgcaatcaactcataattgataagata
cgagttcaagtctcgtggggccaacca
1-3tRNA-Arg(tct)[16339,16415]
atctccatagctcaactggacagagcaagggtcttctacaccaaggttg
agggttcaagtccttctggggatacca
1-4tRNA-Thr(tgt)[16750,16826]
gcccgttagctccaattggtagagcgcctgtctgtaatcaggatgtt
gcggttcgaatccgtaaatgggcacca
1-5tRNA-Arg(acg)[16926,17000]
agtcgcttggccgattggattaggcaaaggtccacgaagcctgctagagt
ggttcgactccactagtactacca
1-6tRNA-Asn(gtt)[17241,17326]
tggcgtgtaagcataatggtactgcactccgctgtaacggagcttccga
aaggtcttttaggttcgagtcctaccgctcagcca
1-7tRNA-Pro(tgg)[17594,17667]
ctcctcgaagcgttacggtagcgtacttcgttggaaacgaagtggcgggtg
gttcgactccacccgaggtgacca
1-8tRNA-Leu(tag)[17728,17811]
gcccttgtgatgaaatggtagacgtgccgggttagattccggtgtcgaa
aggcgtgtcgggttcgagtcgactgagggcacca
1-9tRNA-Gly(tcc)[18298,18372]
gcgggtataactcagaggcagagtgtagccttccaagctgttcgtcggg
atttgaaattccctatccgtcca
1-10tRNA-Arg(cct)[91361,91454]
gaggcgatggaagaggtaatgttcatcaaattcctagtgtggtggtcgat

cacattcatagggatagcagtggttctagtcttcattgactgac
>KU130130.1 Pseudomonas phage vB_PsyM_KIL5, complete genome

1-1tRNA-Ser(tga)[15507,15601]
ggcttggaagccgagatggcctagcggcagcggcttgaaaaccgaggg
ttcacggaagtggacgtgtgagttcgagtcacccaatccgcca
1-2tRNA-Met(cat)[15608,15684]
tggccttagcataattggttaatgcaatcaactcataattgataagata
cgagttcaagtctcgtggggccaacca
1-3tRNA-Arg(tct)[16255,16331]
atctccatagctcaactggacagagcaagggtttctacaccaaggttg
agggttcgaatccttctggggatacca
1-4tRNA-Thr(tgt)[16666,16742]
gcccgttttagctccaattggtagagcgcctgtcttgaatcaggatgtt
gcggttcgaatccgtaaatgggcacca
1-5tRNA-Arg(acg)[16842,16916]
agtcgcttggccgattggattaggcaaaggtccacgaagcctgctagagt
ggttcgactccactagtactacca
1-6tRNA-Asn(gtt)[17157,17242]
tggcgtgaagcataatggtactgcactccgctgttaacggagcttccga
aaggtcttttaggttcgagtcctaccgcgtcagcca
1-7tRNA-Pro(tgg)[17510,17583]
ctctcgaagcgttacggtagcgtactcgttggaaacgaagtggcgggtg
gttcgactccacccgaggtgacca
1-8tRNA-Leu(tag)[17644,17727]
gcccttgtgatgaaatggtagacgtgccgggttagattccggtgtcgaa
aggcgtgtcgggttcgagtcgactgagggcacca
1-9tRNA-Gly(tcc)[18214,18288]
gcgggtataactcagaggcagagtgtagccttccaagctgttcgtcggg
atttcgaaattccctatccgtcca
1-10tRNA-Arg(cct)[91930,92023]
gaggcgatggaagaggtaatgttcatcaaattcctagtgtggtggtcgat
cacattcatagggatagcagtggttctagtcttcattgactgac

>KX397370.1 Erwinia phage vB_EamM_Machina, complete genome

1-1tRNA-Trp(cca)[883,959]
gggggagtagttcaattggcgagagcgtcggattccaaatccggttgttg
caggttcgagtcctgtctcccctgcca
1-2tRNA-Cys(gca)[1281,1354]
ggggcgctggccgagtggttaggcgctggattgcaaatcctgttaccgcg
gttcgattccgcggcgtccctcca
1-3tRNA-Tyr(gta)[4114,4199]
ggcgggttactcaagcggtaacgagagcagactgtaaatctgttcctt
cgggcttcgtaggttcaaatccttcacacgccacca
1-4tRNA-Asp(gtc)[4501,4576]
ggtgctatcgtctagtggccgaggatactaccctgtcacggtagagaccg

gagttcgattctccgtagcaccgccca
1-5tRNA-Ile(gat)[4585,4660]
tgcgtcttagctcagttggtagagcgacccctgataagggtgaggccac
tggttcaagtcagtagatgcaacca
1-6tRNA-Glu(ttc)[4668,4744]
attcccgatctagttgggtccaggatacgacactttcactgtcgggtaca
cgagttcaaatctcgtcgggaatacca
1-7tRNA-Ser(gct)[4750,4840]
agagaattgactgagttggtttaagggtctcccctgctaaggaggtgat
gcgaaagtgtaccattggttcgaatccaatattctctgccca
1-8tRNA-Ile(aat)[5305,5398]
tggctccgtagctaaatcggtagaggcagactttaattagttctccaacg
attttataatcgctggtgtaggttcaagtcctaccggagcaag
1-9tRNA-Asn(gtt)[5482,5557]
gactctgtagttcagttggtagaacggtggactgttaatccatatgtcgc
agggtcagtcctgccagagtcgccca

>KX397371.1 Erwinia phage vB_EamM_Parshik, complete genome

1-1tRNA-Trp(cca)[883,958]
gggggtatagttcaattggcagaatgtcgggtctccaaaaccgaaggttcg
agggtcagacctcgtgcccccgcca
1-2tRNA-Tyr(gta)[4229,4314]
ggcgggttactcaagcggtaacgagagcagactgtaaatctgttcctt
cgggcttcgtaggttcaaactcttcacacgccacca
1-3tRNA-Asp(gtc)[4616,4691]
ggtgctatcgtctagttggccgaggatactaccctgtcacggtagagaccg
gagttcgattctccgtagcaccgccca
1-4tRNA-Ile(gat)[4700,4775]
tgcgtcttagctcagttggtagagcgctcccctgataaggagaggtcac
tggttcaagtcagtagatgcaacca
1-5tRNA-His(gtg)[4783,4860]
gtgtatgtagttcagttggttagaattctggcttgtagcgtcagaggtcg
tgaggtcgaatctcccatacacccca
1-6tRNA-Asp(gtc)[4868,4944]
agtgtgtagtgcagcggtttaagacgcctgcctgtcacgtaggagatcg
tgggttcaaatcccatcagcactgccca
1-7tRNA-Glu(ttc)[4951,5027]
attcccgatctagttgggtccaggatacgacactttcactgtcgggtaca
cgagttcgaatctcgtcgggaatacca
1-8tRNA-Ser(gct)[5033,5123]
agagaattgactgagttggtttaagggtctcccctgctaaggaggtgat
gcgaaagtgtaccattggttcgaatccaatattctctgccca
1-9tRNA-Ile(aat)[5588,5681]
tggctccgtagctaaatcggtagaggcagactttaattagttctccaacg
attttataatcgctggtgtaggttcaagtcctaccggagcaag

1-10tRNA-Asn(gtt)[5765,5840]
 gactctgtagttcagttggtagaacggtggactgttaatccatatgtcgc
 aggttcgagtcctgccagagtcgcca
 >KM606999.1 Enterobacteria phage RB10, complete genome
 1-1tRNA-Arg(tct)c[67423,67498]
 cgaggcatagctcagaaggaagagcaaggaccttctaagtcctgggtcgt
 aggttcgatccctactgcctcgacca
 1-2tRNA-Asn(gtt)c[67503,67577]
 ggatgtgtagctcaatggcagagcgatcgctgttaagcgattgggtata
 ggttcgaatcctatcacgtccgcca
 1-3tRNA-Tyr(gta)c[67582,67668]
 ggggagttatcccgtagaggtagcggtgtggactgtaaatccattgtcat
 tgcgactcgggtggttcgactccatcactccccacca
 1-4tRNA-Met(cat)c[67678,67752]
 ggccctgtagctggaaggttaagcaagcgactcataatcgccagatggt
 ggttcaattccaccagggccacca
 1-5tRNA-Thr(tgt)c[67754,67829]
 gctgatttagctcagtaggtagagcacctcacttgaatgaggatgtcgg
 cggttcgattccgtcaatcagcgcca
 1-6tRNA-Ser(tga)c[67835,67924]
 ggaggcgtggcagagtggtttaatgcaccggtcttgaaaaccggcagtcg
 ctccggcgactcataggttcaaactctatcgctccgcca
 1-7tRNA-Pro(tgg)c[67926,68000]
 ctccgtgtagctcagtttggtagagcgctgattgggatcaggaggtcc
 aaggttcaaatccttgatggagac
 1-8tRNA-Gly(tcc)c[68011,68084]
 gcggatatgtataatggcattacctcagacttccaatctgatgatgtga
 gttcgattctcattatccgctcca
 1-9tRNA-Leu(taa)c[68090,68176]
 gcgagaatgggtcaaattggtaaaggcacagcacttaaaatgctgcggaat
 gatttccttggtggttcgagtccttctcgacca
 1-10tRNA-Gln(ttg)c[68177,68250]
 tgggaattagccaagttggttaaggcactggattttgattccaggatgcaa
 aggttcgagtcctttattcccagc
 >KM606996.1 Enterobacteria phage RB6, complete genome
 1-1tRNA-Arg(tct)c[67416,67491]
 cgaggcatagctcagaaggaagagcaaggaccttctaagtcctgggtcgt
 aggttcgatccctactgcctcgacca
 1-2tRNA-Asn(gtt)c[67496,67570]
 ggatgtgtagctcaatggcagagcgatcgctgttaagcgattgggtata
 ggttcgaatcctatcacgtccgcca
 1-3tRNA-Tyr(gta)c[67575,67661]
 ggggagttatcccgtagaggtagcggtgtggactgtaaatccattgtcat
 tgcgactcgggtggttcgactccatcactccccacca

1-4tRNA-Met(cat)c[67671,67745]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggtcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[67747,67822]
gctgatttagctcagtaggtagagcacctcacttgtaatgaggatgtcgg
cggttcgattccgtcaatcagcgcca
1-6tRNA-Ser(tga)c[67828,67917]
ggaggcgtggcagagtggtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca
1-7tRNA-Pro(tgg)c[67919,67993]
ctccgtgtagctcagtttggtagagcgctgattgggatcaggagggtcc
aaggttcaaatccttgatggagac
1-8tRNA-Gly(tcc)c[68004,68077]
gcggatatcgataatggcattacctcagactccaatctgatgatgtga
gttcgattctcattatccgtcca
1-9tRNA-Leu(taa)c[68083,68169]
gcgagaatggtcaaattggtaaaggcacagcacttaaatgctgcggaat
gatttccttggtggttcgagtccttctcgacca
1-10tRNA-Gln(ttg)c[68170,68243]
tgggaattagccaagttgtaaggcactggatttgattccaggatgcaa
agggtcagtcctttattcccagc

>KM606998.1 Enterobacteria phage RB9, complete genome

1-1tRNA-Arg(tct)c[67417,67492]
cgaggcatagctcagaaggaagagcaaggaccttaagtctgggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-Asn(gtt)c[67497,67571]
ggatgtgtagctcaatggcagagcgatcgctgtaagcgattggtata
ggttcgaatcctatcacgtccgcca
1-3tRNA-Tyr(gta)c[67576,67662]
ggggagtatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[67672,67746]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggtcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[67748,67823]
gctgatttagctcagtaggtagagcacctcacttgtaatgaggatgtcgg
cggttcgattccgtcaatcagcgcca
1-6tRNA-Ser(tga)c[67829,67918]
ggaggcgtggcagagtggtttaatgcaccggtcttgaaaaccggcagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca
1-7tRNA-Pro(tgg)c[67920,67994]
ctccgtgtagctcagtttggtagagcgctgattgggatcaggagggtcc
aaggttcaaatccttgatggagac
1-8tRNA-Gly(tcc)c[68005,68078]

gcggatatcgataatggcattacctcagacttccaatctgatgatgtga
gttcgattctcattatccgctcca
1-9tRNA-Leu(taa)c[68084,68170]
gcgagaatgggtcaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgtgggttcgagtccttctcgacca
1-10tRNA-Gln(ttg)c[68171,68244]
tgggaattagccaagttggttaaggcactggattttgattccaggatgcaa
aggttcgagtcctttattcccagc

>KM606997.1 Enterobacteria phage RB7, complete genome

1-1tRNA-Arg(tct)c[67417,67492]
cgaggcatagctcagaaggaagagcaaggaccttctaagtcctgggtcgt
aggttcgatccctactgcctcgacca
1-2tRNA-Asn(gtt)c[67497,67571]
ggatgtgtagctcaatggcagagcgatcgctgttaagcgattgggtata
ggttcgaatcctatcacgtccgcca
1-3tRNA-Tyr(gta)c[67576,67662]
ggggagtatcccgtagaggtagcgggtggactgtaaatccattgtcat
tgcgactcgggtggttcgactccatcactccccacca
1-4tRNA-Met(cat)c[67672,67746]
ggccctgtagctggaaggtcaagcaagcgactcataatcgccagatggt
ggttcaattccaccagggccacca
1-5tRNA-Thr(tgt)c[67748,67823]
gctgatttagctcagtaggtagagcacctcacttgaatgaggatgtcgg
cggttcgattccgtcaatcagcgcca
1-6tRNA-Ser(tga)c[67829,67918]
ggaggcgtggcagagtggtttaatgcaccggtctgaaaaccggcagtcg
ctccggcgactcataggttcaaatcctatcgctccgcca
1-7tRNA-Pro(tgg)c[67920,67994]
ctccgtgtagctcagtttgtagagcgctgattgggatcaggagggtcc
aaggttcaaatccttgtatggagac
1-8tRNA-Gly(tcc)c[68005,68078]
gcggatatcgataatggcattacctcagacttccaatctgatgatgtga
gttcgattctcattatccgctcca
1-9tRNA-Leu(taa)c[68084,68170]
gcgagaatgggtcaaattggtaaaggcacagcacttaaaatgctgcggaat
gatttccttgtgggttcgagtccttctcgacca
1-10tRNA-Gln(ttg)c[68171,68244]
tgggaattagccaagttggttaaggcactggattttgattccaggatgcaa
aggttcgagtcctttattcccagc

>MF988720.1 Pseudoalteromonas phage J2-1, complete genome

1-1tRNA-Ile(gat)c[132398,132472]
cgttttgtagttagtggttattacggctcggtgataaccgacagatggt
agttcgattctaccgaaacgacca
1-2tRNA-Met(cat)c[132477,132551]

gctcctgtaacataatggctaattgtgacgactcataatcgtaaaccct
tggtcgattcaaggcgggagcacca
1-3tRNA-Cys(gca)c[132553,132627]
gcagggttggcagagtagtaattgtgctggattgcaaatccagtataag
ggcgcgattcccttaccctgctcca
1-4tRNA-Tyr(gta)c[132919,133005]
gggtcggttgggtgaattggtaaaccaccagactgtaaatctggcgtct
ccgagcattcctagttcgagctaggcgcccccacca
1-5tRNA-Ser(gct)c[133007,133097]
ggagaattggctgagtggttaaggcgctcccctgctaaggagtgagacg
ttagtagcgtcccaatagttcgaatctattattctccgcca
1-6tRNA-Gly(tcc)c[133171,133244]
gcgactatgggtgtagagtaacacgctgctcctccaagtcggaatctcgg
gttcgatccccgatggctcgctcca
1-7tRNA-Arg(tct)c[133253,133329]
gcaagtgtagctcagttggatagagcagtagccttctaagctattggta
gtggttcgagtcactcacttggtcca
1-8tRNA-Trp(cca)c[133332,133406]
agggatgtggtgaattggtaacatctcggattccaaccccgaggcagag
agttcgaaactttccgtccctgcca
1-9tRNA-Asp(gtc)c[133994,134069]
agcgacattggtgtatcggttagcatacctgctgtcacgttgggtctcc
gagttcgaigctcgggtatctccgcca
1-10tRNA-Asn(gtt)c[134353,134427]
gacggtgtagctcagaggcagagcatcggactgttaatccgcaggtcggg
atttcgaaattccccaccgtctcca
1-11tRNA-Glu(ttc)c[135052,135126]
gctcgatcgtctaattggtaagacatctgactttctatcagaggattgg
agttcgattctccatacagtagacca
1-12tRNA-Pro(tgg)c[135129,135205]
ctccgtatagctcagtttggtagagcattccgtttgggacggaagggtcg
tatgttcaagtcgtactacggagacca
1-13tRNA-His(gtg)c[135222,135294]
ggtgacattagtttagtggtagaatttcgagttgtgacctcgaaggcag
ggttcaattcccgatgtcacccc
1-14tRNA-Lys(ttt)c[135318,135393]
gggtcgtagctcagttggttagagcaggagcttttaactctcaggtcgt
tggttcaaatccaacacggcccacca
1-15tRNA-Ala(tgc)c[135395,135470]
ggggatatagctcaattggttagagcactgctttgcaaggcaggggttta
gggttcaaatccctatatctccacca
1-16tRNA-Thr(tgt)c[135479,135551]
gtcaaatagctcagttggttagagcatctgtttgtaatcagagggtcgg
aggttcgaaaccttctgtagca

>MF403008.1 Agrobacterium phage Atu_ph07, complete genome

6–1tRNA–Leu(caa)c[169426,169509]
gcgccgctggtgaaattggttagacacagaatcctcaaaaggttccgcga
aagcatcccgggtcagtcggggcggcgtagca
6–2tRNA–Met(cat)c[169521,169596]
aggcgggtagccaagtggtaaggccacctgctcataacaggtttatcgt
cggttcgatcccgaacccgcctacca
6–3tRNA–Ser(gct)[230506,230598]
ggaacgttggccgagtcaggtttaaggcagcacattgctaacgtgctgtg
cgtaatagcgtaccagaagttcgaatcttctacgttccgcca
6–4tRNA–Val(aac)c[288496,288570]
agtcaaatagctcaacccggtgaagagcggcctataaccaagggaatgatg
atggttcaaatccatctttgactac
6–5tRNA–Gly(gcc)c[303235,303309]
gcgggtgtagctcagtggtagagcgtcacgttgccaacgtgaatgtcgag
ggttcaaatcccttcgcccgtcca
6–6tRNA–Met(cat)c[303646,303723]
cgcggagtgagaaagtcggttaactcatcagcctcataagctgaggatc
gcaggttcaaatcctgcctccgcaacca
6–7tRNA–Asp(gtc)c[317242,317319]
gcggatgtagctcagttggtcagtagcgtcggtgtgcacgccggaggtc
gcgggttcgagtccttcattcgcgcca
6–8tRNA–Arg(tct)c[317484,317561]
ggttccttagttcagttggaatagaacgactgccttctaagcagtaggtc
gtaggttcgagtcctacaggaatcgcca
6–9tRNA–His(gtg)c[323350,323424]
gcttgatcgtacaatggttagtacgctggtttgtggcaccggagatcgt
ggttcaattccccgtccaagtacca
6–10tRNA–Ser(tga)c[323788,323879]
ggatgggtgtccgagtcggtttatggaactagctctgaaaactagcgtg
cgtgagagcgtaccgtgggttcgaatccacccatcctcca
6–11tRNA–Leu(tag)c[332329,332418]
gcgggtgtggcggaattggtctacgcacgagtttaggtactcgcgcctc
tttagcaggcttgggggttcaagtcctccacccgtacca
6–12tRNA–Gly(tcc)c[332458,332530]
gcgggtatagcttaatggtagagcgtgtccttccaagtcagaggccgtg
ggatcgggtccctactaccgctc
6–13tRNA–Gln(ttg)c[332539,332613]
tcagggttagttcagtggtagaacgcgaatttttggtattcgatgcgga
tgttcgaatcatccacctgatcca
6–14tRNA–Pro(tgg)c[334331,334407]
cggagtgtagcgcagctcgttagcgcacatctggttgggaccagagggtcg
ggagttcgaatctctccactccgacca
6–15tRNA–Phe(gaa)c[335908,335983]

gcacctgtagctcagttggtagagcatcgactgaagatcgaggtcac
tggttcgattccagtcaggtgcacca
6-16tRNA-Gln(ctg)c[335985,336058]
ttgggattagtttaacggtagaacaacggactctgactccgttggtagt
gttcgaatccattatcccaagcca
6-17tRNA-Pro(tgg)c[336074,336151]
cagggtataaggaagtctggtctatccggtcacacttggaatgtggcaac
gctggttcaaaccagctaccctgacca
6-18tRNA-Val(tac)c[336155,336229]
gcgcgattagctcagcgggagagcgctcgtttacaccgaggatgtcggg
agttcaatcctctcatcgcgacca
6-19tRNA-Glu(ttc)c[337734,337810]
acgtctgtggccaagttggttaaggcacctcactttcaatgaggaaatcg
ccggttcgagtcggtcaggcgtacca
6-20tRNA-Met(cat)c[337849,337921]
atcgggattagctcagcggtagagcggcactttcatacgggttggtcgt
ggttcaaactctactctcgatac
6-21tRNA-Trp(cca)c[337925,338000]
acacgtatagctcagttggtagagcggcgtctccaaaccgcaggtcgg
gggttcgaagccctctgcgtgtgcca
6-22tRNA-Tyr(gta)c[338064,338146]
tggtggtgccagagcggtcgattgggacggactgtaaatccgtagtgt
aagccacgttggttcgaatccaaccaccaac
6-23tRNA-Ile(gat)c[338161,338240]
gcgcgggtagctcagttttggtcagagcacaccactgataatggtgagg
tcgatggttcaagtccatctccgcacca
6-24tRNA-Pro(tgg)c[338316,338393]
cagtcgctgggaaagtctggttaatccgtacacttggtgtagagaac
gtgattcgaattcagccgcactgacca
6-25tRNA-Phe(gaa)c[338698,338773]
gcaatcgtaactcagttggtagaggtcacactgaagatgtgaaggtcat
ccgttcgaaccggtcgtgacacca
6-26tRNA-Arg(acg)c[338790,338867]
gtacccgtagctcaactggactagagcgtggtctacggaaccagaggt
gtggattcgactctaccgggtacgcca
6-27tRNA-Ala(tgc)c[338871,338943]
ggggaatgctctgggtaagcggacaatccttgcaagattgtagcccgacc
ggttcgattccggtattctccac
6-28tRNA-Lys(ctt)[390848,390923]
gggtgcttagctcagttggtagagcaatcggtcttaaccggttggtcac
aggttcgaaccctgtagcacctacca
6-29tRNA-SeC(tca)[430713,430787]
gggagtgtggctgactggtaaagcagatgccttcaaacattgagatgcg
ggttcgattcctgtcactcccacca

6–30tRNA–Cys(gca)c[446807,446882]
ggcgcggtgcaccgaatggtagtagctcctgcaaaggagatttatgt
cagttcgaccctgacccgcgcctcca

>KU682439.2 *Stenotrophomonas* phage vB_SmaS–DLP_6, complete genome

7–1tRNA–Arg(cct)[92962,93038]
gccctttagctcaactggacagagcagcgatttcctaggtcgccggttg
taggtcgaatcctaccaagggcgcca
7–2tRNA–Pro(tgg)[103314,103390]
cggagttagcacagcttggtagtgcgcgtgcttgggagcatgaggtcg
caggttcgattcctgtcactccgacca
7–3tRNA–Asp(gtc)[103636,103709]
gggacttaggcttctgggaagctagtggactgtctatccactcaggcgg
gttcgatccccgtcagtcctcgcca
7–4tRNA–Leu(tag)[103950,104037]
gcgtcactaggggaattggcaaccactggatttaggtccagcgtccg
aaagggcagtgagggttcgagtcctctgtgacgtacca
7–5tRNA–Met(cat)[104140,104215]
cgtgctgtacgattcgcggtgaatcgactggctctcataagccaagaaggt
gagttcgactctcaccagcacgacca
7–6tRNA–Gly(gcc)[104297,104371]
gcgggttagctcagtggtagagttctccttgccaaggaagatgtcgag
agttcgaatctcttcacccgctcca
7–7tRNA–Met(cat)[104407,104483]
tgcacggtacaatcaacggaagatggacagtctcataagctgctcggttg
cgggttcgactcccgctgtgctacca
7–8tRNA–Tyr(gta)[104488,104579]
gggtgtattacggctagcggctaaagccaccagactgtaaactcggcgcc
tcgcaagggcaatcgggtggttcgaatccatctacaccacca
7–9tRNA–Leu(caa)[104656,104732]
gctcccggtgccgcaactggaagacgggcttgattcaaaaccaagatgttg
tcggttcgatcccgaccgggagtagca
7–10tRNA–Ile(tat)[104738,104832]
gcttctgtagtgaattggaagcacgagcggattatcacccgataccg
ccagattagcggtagcctcgggtcgattccgagcagaagcacca
7–11tRNA–Phe(gaa)[104845,104920]
ggggcagtagctgatgaggtcttagcactggcttgaaaaccagagatgt
cggatcgttaccgacctgccccacca
7–12tRNA–Arg(ccg)[106026,106102]
gccctttagctcatctggaagagcctccggtccgatccggaaggtag
caggttcgactcctgtcaaggcacca
7–13tRNA–Thr(cgt)[106481,106554]
gtccattagtctaattggtatgacagctgttcgtaatcagctggcgggg
gttcgattccctcatggagcacca
7–14tRNA–Asn(gtt)[107530,107615]

ggtacgcgtgccagtgagggaagcaataggctgttaacctatcgacgaa
agtcccggctctggttcgattccagagcgtatcgcca
7-15tRNA-Glu(ctc)[108661,108737]
gcacatatcttaacaggttcaggaagctagactctcaatctagtaatc
ggggttcgagtcctccgtaggtgtacca
7-16tRNA-Thr(tgt)[108827,108901]
gctcctaaagcattgatggcgatgcagttgccttgtaagcatcagaaccc
agttcgattccgggtgggagcacca
7-17tRNA-Ile(gat)[109099,109172]
tgtctcgtagctcaaaggtagagcaaccggctgataaccggctcgacactg
gatcgttcccagtcgaagcaacca
7-18tRNA-Asn(gtt)[109647,109721]
ggatctcgagccagctgggtgtgggcagtgagctgttaactcatgaagcag
ggatcgtaaccctgggggtccgcca
7-19tRNA-Lys(ctt)[109728,109802]
gggaagttaactcaactggtagagtcctgcctcttaagcagcgagacgcg
agttcgatcctcgacttcccacca
7-20tRNA-Glu(ttc)[109939,110012]
acaccgttgcttctggtgaggcagtcagccttcaagctgacgcagaggg
gatcgtaaccctacggtgtgcca
7-21tRNA-Ala(tgc)[110017,110092]
gggggattagctcagctgggagagcagttgcttgcagcatcaggtcat
cggttcgatcccgatatcctccacca
7-22tRNA-Cys(gca)[110184,110258]
gtcctgtagcagagtggtcatgcggtggctgcaacccttccgacgtc
ggttcgatcccgcacacaggactcca
7-23tRNA-Gly(tcc)[110267,110341]
gcaggtatgggtatattgattgtgccctagctcttccaaactagagaagcg
ggtttgattcccgtacctgtctcca
7-24tRNA-Gln(ctg)[110348,110421]
agccctgtagttaatggtagaatatcggtctctgaaaccgaagacgaag
gatcgataaccttctggggctgcca
7-25tRNA-Trp(cca)[110432,110507]
gcgtcagtagctcaattggcagagttccgaactccaaatccggcggttgt
aggttcgattcctacctggcgcgcca
7-26tRNA-Val(tac)[110516,110590]
gcctgtctagtctctgggagaacaccctctttacacgtgggcttaggtg
agttcgattctcacggcaggtacca
7-27tRNA-Thr(ggt)[110832,110906]
gcttgtagcacagtggtagtcacctcttggtaaagaggaggtcgcg
ggttcgattccctctacaagcacca
7-28tRNA-Val(gac)[111078,111152]
agttccctagctcagtggtagagcgctccttgacatggagtaggtcagc
ggttcgatcccgtgggaactacca

7-29tRNA-Asp(gtc)[111260,111337]
 cgggcatgagactgcttgggtgtggttgcctccctgtcacgggagatatag
 acgggttcgatccccgtatccccgacca
 7-30tRNA-Arg(tct)[111579,111655]
 gcgccattagctcaactggatagagcaactctttctaggctgtgggttg
 agggttcgaatccttcattggcgcacca
 7-31tRNA-Leu(gag)[112066,112142]
 gcttccgtggcgcaattggaagacgactaccttgaggtggtaggtgttg
 agggttcgagtccttcggaagtacca
 7-32tRNA-Phe(gaa)[112149,112224]
 gcttcggtagctcagttggtagagcagtggaactgaaaatcctcgtgcgg
 cggttcgattccgccctgaagcacca
 7-33tRNA-His(gtg)[112574,112648]
 gtggtcttagttagtgggtctgcacgggtgtctgtgaaacaccaagtcga
 tgttcgatccatcgattccaccca
 7-34tRNA-Lys(ctt)[112656,112731]
 ggggtccgtagctcaatggttagagcattcgctcttaagcgacaggtgt
 gaggtcgagtcactggaccacca
 7-35tRNA-Arg(acg)[112740,112816]
 gcgccgttagctcagctggatagagtacctggctacgaactaggcggtcg
 ggggttcgactccctcacggcgcacca
 7-36tRNA-Pro(cgg)[113092,113169]
 cggaggttagctcagctcgttagcagcgctactttcggaagtagaggtc
 gcaggttcgattcctgtcactccgacca
 7-37tRNA-Leu(cag)[113330,113406]
 gcccatgtgacgcaattggtagacgtactatcctcagaaggtaggtgttg
 gcgggttcgagtcgccctatgggcacca
 7-38tRNA-Pyl(cta)[113763,113837]
 gcgcgattagctctctgggagagcagccgcctctaaaacggtatgagatg
 ggttcgatccccatatcgcgcgcca

>KR560069.1 *Stenotrophomonas* phage IME-SM1, complete genome

8-2tRNA-Arg(tct)[1537,1613]
 gccccggtagctcaaccgtagagcaccgccttctaagcgggtggtta
 ggggttcgattccctccgggtgcca
 8-3tRNA-Ile(gat)[1615,1689]
 agcgcgttagctcagcggtagagcactcgaccgataatcagtggtcgtg
 ggtcaaatcctacacgcgtacca
 8-4tRNA-His(gtg)[1709,1785]
 gtgtacgttggtcgtattggttcggacgcctgattgtgagtcaggagcat
 gtgggttcaattcccatctacacccc
 8-5tRNA-Trp(cca)[2143,2218]
 acgtcggtagctcaattggcagagcgggtggcctccaaagccactggttga
 ggggtcaagtccttctcggcgtgcca
 8-6tRNA-Cys(gca)[2227,2301]

ggctggttggtcagagagggtatgcggatggttgcaacccatcatatggc
ggttcgagtcctcaccagcctcca
8-7tRNA-Lys(ctt)[2716,2792]
aggttgctagctcaactggttagagcaatcgcccttaagcgatagggtc
agggttcaagtcctggcgacctacca
8-8tRNA-Asn(gtt)[3162,3238]
tctggattagctcagttggttagagcacgcgcctgtaagcgcggggtca
ctggttcaagtcagtatccagagcca
8-9tRNA-Ala(tgc)[3247,3322]
gggctgtagctcagatgggagagcgctgccttgacgcaggaggtcgt
cgggtcgatcccgacacggtccacca
8-10tRNA-Val(tac)[3419,3494]
gggttgtagctcagttggttagagcgctctcttacacggaggatgtcca
gggttcgagaccttgacaaccacca
8-11tRNA-Met(cat)[3503,3577]
tgcgcgatagtgaaattggcatcacgtgggtctcataagcccaaatttcg
ggttcgagccccggttcgcaacca
8-12tRNA-Glu(ttc)[3585,3659]
gcaccgttctctaaaggttaggagatcgggtcttcaccccgacaatagg
agttcgagtcctctacggtgtacca
8-13tRNA-Leu(caa)[3671,3754]
gcccgagtggtggaactggcagacacactgcactcaaatgcagcgctc
aggcgtgacggttcaaattccgtccttggttacca
8-14tRNA-Ser(tga)[3762,3845]
gggttggtgcagggcacaaactggtcttgaaaaccaggccatccga
aaggttgagggttcgattccttcacgacccgcca
8-15tRNA-Tyr(gta)[4133,4219]
gtagtccggtgaagttggagagtcacaccaggctgtaaacctggcgctt
tatggctgagtaggttcgattcctacgcgtgcacca
8-16tRNA-Phe(gaa)[4224,4298]
gcgtcgatagctgagatggattagcgaggggctgaaaatccctagaggt
ggttcgataccaattcgatgcacca
8-17tRNA-Asp(gtc)[4309,4385]
cgggttgtagttcagttggttagaatgctgcctgtcacgcaagaggtca
cgggttcgatccccgtcagcccgacca
8-18tRNA-Gln(ttg)[4430,4505]
agcgggttagctcagatggaagagcagtggttggatccattggtcgg
gggttcgactccctcaccgcccacca
8-19tRNA-Ser(gct)[4517,4606]
gggtatttcgtgagtcgtggtttaaagcagctccgtgctaaggagtcagg
tcgaaaggcctcgtaggttcaaattcacaatacccgcca
8-20tRNA-Gly(tcc)[5159,5232]
gcgagagtagtttaacggtagaatgtctgcctccaagcagatggttcgg
gttcgattcccgggtctcgtcca

8-21tRNA-Pro(tgg)[149006,149082]
cggggtatagcgagctctggtagcgcgctgcttgggagcaggatgtcg
ggggttcgagtcctctaccccgacca
8-22tRNA-Leu(tag)[149171,149253]
gggcgtgtggtggaattggcagacacactggattaggtccagcgcttc
ggcgtgaggggttcgagtcctcctagcccacca
8-23tRNA-Thr(tgt)[149582,149657]
gccggttagctcagctggtagcaactgcctgtaagcagtaggtcgt
cgggtcgaatcccgacagccggcacca

>KC292026.1 Halovirus HGTV-1, complete genome

9-1tRNA-Ser(gga)c[42266,42352]
gccgtgacaaggggatggcgaccccgcatgctggaaccatcgtgtcct
gagatatggcttcaggttcgactcctgctctcggcg
9-2tRNA-Val(gac)c[42609,42683]
gggtgtgtgtccaactcggtaagataccgcattgacattgcggtgatt
tgaggttcaaatcctctcgacacca
9-3tRNA-Val(tac)c[42688,42762]
acgggtataattcaatctggtcagaatactccgcttacatcggagatgtt
gaaggttcaaatcctctgccccga
9-4tRNA-Pro(tgg)c[42770,42840]
tggctggtggtccaatggtacgattcggcggttgggacgccgagatatgg
gttcgactccctccagccaa
9-5tRNA-Leu(taa)c[45441,45526]
aggtcggtgcgccgagctctggtcaaaggcagggcacttaagatccccga
ttagtcttcacaggttcaaatcctgtccggcctac
9-6tRNA-Leu(caa)c[45530,45613]
gagtgatagccaagtggtaaaaggcaggagagtc aaatcctcccgtat
agtccttcgcaggttcgaatcctgctccgctcac
9-7tRNA-Leu(gag)c[45617,45700]
gcatctgtagggaactggtgaaacccataggcttgaggggccttgcccgt
aggggcttcttggttcgattccaagcgggtgca
9-8tRNA-Leu(tag)c[45786,45869]
gagtcggtacgagaaatggttaaactcacgaggcttaggacctcgcgctt
tagtgctttgcaggttcgaatcctgcccggctca
9-9tRNA-Arg(tct)c[46355,46430]
taggcgtataaggtagtgactatcccgcgagtccttctaaactgcgaca
ggggttcgaatccccttacgcctgtc
9-10tRNA-Arg(tcg)c[46700,46775]
tgccacgtagcctaattggataaggcaatggccttcgaagccagagatt
gcaggttcgagtcctgctggtggcgct
9-11tRNA-Ser(tga)c[47447,47532]
gccgagattgagtcaggcaaaactcagtcgttttga aaacagacggtcgc
atatcgcgccaagaggttcaaatcctgctcggcg
9-12tRNA-Cys(gca)c[47537,47609]

gtcgggatgccagagtggcacgcccggacagcagattcgggtacggg
ggttcgaatccctctcccactc
9–13tRNA–Ile(gat)c[48011,48085]
gcgttcgtagccaaatcaggaaggcgtccgctgataacggaagattt
gttggttcaaatccaaccggacgca
9–14tRNA–Gln(ctg)c[48088,48162]
tagtcggtttgttagcggccaatcatcacgaggtctgaccctcgtgaca
gaggttcgaatcctctaccgactat
9–15tRNA–Ser(gct)c[48164,48246]
gccgtggttgagtgcaggcaactcggttggattgctaataacgcctt
tatggtcagaagggtcgaatccttccctcggcg
9–16tRNA–Ile(gat)c[48250,48320]
acgaggatagtgtaatggaaacactccggtcagatggaccggcactacct
gttcgattcaggttcctcgtga
9–17tRNA–Ser(cga)c[48383,48468]
gccggtggttgagcaatctggtcgctcacctgtctcgaacacaggctccc
atttggaatgcagggtcgaatcctgccctcggcgc
9–18tRNA–Trp(cca)c[48474,48544]
gaggtcttgggtaatagaatcctactcgcctccagagcgagtgatggga
gtgcaaatctctcagacctca
9–19tRNA–Gln(ttg)c[48548,48620]
agtccccgagtcgctggcgaaagacgctcggcttggaccgagagagcg
aggttcgattcctcgggggacta
9–20tRNA–Lys(ttt)c[48804,48876]
gggccggtggcgaaatggcttaacgcaggaggctttaaactcccatcgc
gggttcgattcctgctcggccca
9–21tRNA–Thr(ggt)c[48880,48952]
atccagtatggtctaattggtagggcacggcttggatggctgacgtgag
ggttcaactccctctgctggatt
9–22tRNA–Thr(cgt)c[48954,49029]
atccgttggtgccaatttgacgggcactcgcctcgtgaagcgagaggtt
gtgggttcgattcccaccagcggatt
9–23tRNA–Thr(tgt)c[49031,49103]
tcgggtcaggcccataggagtggcgttccttgaaggaacagacggt
gggttcgactcccacgaccgat
9–24tRNA–Met(cat)c[50107,50194]
tcccagcttgagcagctctggctatgctcggcaggctcatatcctgttgt
gcttcgcacgaaatgggttcgaatcccatcgtcggaat
9–25tRNA–Lys(ctt)c[50195,50271]
gggctgatggcgaaacttggtctaaacgcggaaggctcttgaccttctaca
tacgggttcaaatcctgttcagccac
9–26tRNA–Tyr(gta)c[50274,50347]
ctctgaagaccgctggttaagggtacacgcctgtagagcgtgttcagat
aggttcgaatcctactcgggagac

9–27tRNA–Asn(gtt)c[50350,50424]
 tgtcgcgtagttcaattagtagaacactcggctgttaccgagatgttg
 gaggtgcaagtccctccctgcgacgt
 9–28tRNA–Gly(gcc)c[50474,50544]
 gcgtggttggtccaatggaaagacggctccctgccacggagcagactcgg
 gttcgattcccgaatcgcgca
 9–29tRNA–Gly(tcc)c[50549,50619]
 gcgtggctgtccaatggcaagatcgggcctccaagcctgagatacga
 gttcgactctcgtgccgcgca
 9–30tRNA–His(gtg)c[50624,50697]
 tccggcgcgtggtggaaaagttaacattcgccctgtgacggtcgagatac
 gactgcgaatctcgtgcccggacc
 9–31tRNA–Glu(ctc)c[51556,51632]
 gctgattggagtctccgtggcgagagacgtacgttctcagcgtagaggt
 cgcgggttcaattcctgtcatcagcac
 9–32tRNA–Phe(gaa)c[51636,51710]
 gggtcgataggataattgggaatccacctgttgaagaacaggcgcac
 tcggttcaaatccgggtcggccac
 9–33tRNA–Ala(agg)c[52081,52168]
 gctggcttgggtagtggacgcacggcattaagccaatccttcgaccc
 tcgaggtcgagacacgagttcgaatctcgtagccagta
 9–34tRNA–Asp(gtc)c[52304,52376]
 tgccgaagtggctctaaaagtaagatgcgtgcctgtcacgcagagactcg
 ggagcattaccgggttcggcgt
 9–35tRNA–Arg(gcg)c[53348,53420]
 gggcgattggctactggatatgacacatccctgcgaaggatgagaagg
 agttcgattctctcattgccac
 9–36tRNA–Gly(tcc)c[121104,121188]
 acgccgcctccacaggatagccgttcgttccgtcgaacgtggctact
 gtgtagggcatactcgttcggtcgagttgacgtg

*Nudiviridae

>KM610234.1 *Tipula oleracea* nudivirus isolate 35, complete genome
 1–1tRNA–Val(tac)[39778,39850]
 gcgggtatggctagtgggtatggcgtctgtttacacgcagaaggtccc
 ggggtcaatccccgggtgcccgta

*Phycodnaviridae

>JF411744.1 *Paramecium bursaria* Chlorella virus 1 (PBCV–1), complete genome
 1–1tRNA–Leu(caa)[164946,165026]
 gatagggtatgcaagtggtaaagcagctggtctcaagatccagtccttc
 ggggtcgcgggttcgactcccgtctctatca
 1–2tRNA–Ile(tat)[165052,165124]
 gttcgcttagctcagtggttagagcattggctttagagccaagggtcac
 cggttcgatcccggtagcgaaca
 1–3tRNA–Asn(gtt)[165254,165327]

gacgccatagctcagttggtagagcggttcgactgttaatcgagaggtca
 ccggttcgaacccggttggtgtcg
 1-4tRNA-Lys(ctt)[165330,165403]
 tgcccgctagctcagtcggtagagcgccagactcttaatctggtggtcg
 tgggttcgagccccacggtggcat
 1-5tRNA-Asn(gtt)[165427,165500]
 gacgccatagctcagttggtagagcggttcgactgttaatcgagaggtca
 ccggttcgaccccggttggtgtcg
 1-6tRNA-Lys(ctt)[165503,165577]
 tgcccgctagctcagtcggtagagcgccagactcttaatctggtggtcg
 tgggttcgagccccacgatgggcat
 1-7tRNA-Lys(ttt)[165709,165783]
 tgcccgctagctcagtcggtagagcgccagacttttaatctggtggtcg
 tgggttcgagccccacgatgggcat
 1-8tRNA-Arg(tct)[165805,165881]
 tggtcgctagctcagtcggataagagcaacagacttctaactctgtaggt
 cgtgggttcgagccccaccgtgatcga
 1-9tRNA-Val(aac)[165914,165986]
 gatcccttagctcagttggaagagttttgcctaacacgcagaaggtcgc
 aggatcgaaacctgcagggatca

>AJ890364.1 *Emiliana huxleyi* virus 86 isolate EhV86

1-1tRNA-Ile(tat)c[39461,39534]
 gtccattaactcagttggtagagtgtgttcctatgaagctatggtcgg
 cgttcgagcacgccatgggacac
 1-2tRNA-Gln(ttg)c[43293,43364]
 cctcctatagctagcggttaaggacaatggttcttgataccatgagcatg
 tgttcgaatcacattaggaggt
 1-3tRNA-Asn(gtt)c[43367,43441]
 tcccatgtagctcaattggtcagagcgtcggtgttaaccgcaaggttg
 tgtgttcgattcacaccgtgggagc
 1-4tRNA-Arg(tct)c[203554,203628]
 agccctcgtagctcagtgtagagctcttgcttctaagcaagtggtcg
 cgagttcgatcctcgccgtgggtt

>DQ890022.1 *Paramecium bursaria* Chlorella virus FR483, complete genome

1-1tRNA-Ile(tat)[141848,141920]
 gttcgcgtagctcaatggtcagagcactgatcttatgagtcaggggttcg
 cgggttcgagtcgggtcgtgaaca
 1-2tRNA-Leu(taa)[141945,142029]
 ggcacgattccaagtctggtcaacggggctggtcttaagaaccagtgc
 atatgcttcgtcggttcaaatccggtcgtgctac
 1-3tRNA-Arg(tct)[142053,142128]
 gtctctgtggcgcaatggacagcgcgttgacttctaatacgaaggttcg
 ggggttcgacccccgccagagacgcca
 1-4tRNA-Gly(tcc)[142129,142199]

ggatgtgatgcaacggtagcataacagcctccaagctgtaaacctgg
gttcgactcccagcacattca
1-5tRNA-Asn(gtt)[142222,142297]
tggcgtcctagctcagtcggttagagcgacaggctgtaaacctgtaggtc
atcggttcgattccgatggatgccga
1-6tRNA-Asn(gtt)[142319,142394]
tggcgtcctagctcagtcggttagagcaacaggctgtaaacctgtaggtc
atcggttcgattccgatggatgccga
1-7tRNA-Tyr(gta)[142416,142501]
ctcgccatagctcaattggaagagcgaaggactgtaattgtttattgtc
atccttaggtacctggatcgaaaccgggtggtgaga
1-8tRNA-Lys(ctt)[142504,142576]
gcccggtagctcagtcggttagagcgctagactcttaatctagtggtcgt
gggttcgagccccacatcgggca
1-9tRNA-Thr(cgt)[142738,142810]
gccggtgtagcttagtggtaaagcgcttgcttcgtaagcaagagaccatg
agttcaatcctcatcaccggcac

>EF101928.1 Acanthocystis turfacea Chlorella virus 1, complete genome

1-1tRNA-Ser(act)[83726,83794]
gtccttagctcagaggagagcgctggtctactagaccaaagggggcgggt
tcaattccgtcatggagaa
1-2tRNA-Arg(tct)[83799,83873]
gggagcgtagctcagttggatagagcgacagacttctaactgtaggccg
tgggttcgagccccaccgttctcgc
1-3tRNA-Gly(tcc)[83898,83968]
ggactcgtgatgtagtggtaacatactgcctccaagcaagatacctgg
gttcgattcccagcgtgttca
1-4tRNA-Asp(gtc)[83991,84062]
gtcgtggtagtatagtggttagtattcctgcctgtcacgcaggagaccgg
ggttcaattccccgccacggcg
1-5tRNA-Val(aac)[84086,84158]
gaccgtagctcagttggttagagcatctgttaacacgcagaaggtctg
gggatcgagaccattgggtta
1-6tRNA-Asn(gtt)[84276,84349]
ggcgctgtagctcagtcggttagagcacttggctgttaaccaaggggtca
tcggttcgattccgatcagtgccg
1-7tRNA-Lys(ctt)[84456,84528]
gcccggtagctcagtcggcagagcgcaaggctcttaaccttgggtcgt
gggttcgagccccacatcgggca
1-8tRNA-Asn(gti)[84551,84624]
ggcgctgtagctcagtcggttagagcacttggctgttaaccaaggggtca
tcggttcgattccgatcagtgccg
1-9tRNA-Leu(taa)[84773,84858]
ggcagcatcggttagtcaggtccagaccgggggtcttaagaacctctct

cttatgagggcgtgggttcgaatcccactgttgcca
1-10tRNA-Thr(agt)[115793,115867]
gctcccatagctcagttggttagagcgcgacttagtaaggtcgaggtcc
gtgggtcgaatccgcgtgggagcac

>DQ491003.2 Paramecium bursaria Chlorella virus AR158 genomic sequence

1-1tRNA-Leu(taa)[172099,172184]
ggtaccatggccgagttggttaaggcgatccgcttaagacggattggac
acacgtccacggaggttcgaatccttctgtactac
1-2tRNA-Ile(tat)[172209,172281]
gttcgcttagctcagtgatagagcattggtcttatagccaagggtcac
cggttcgatcccggtagcgaaca
1-3tRNA-Asn(gtt)[172307,172378]
gacgatgtggtgaaaagggtatcacagatggctgttaacctccgttcag
agttcgattctctgcttcgtcg
1-4tRNA-Leu(caa)[172430,172514]
ggcagaatcgatagcctggtccattccgtcccgtcaagacgggaaccc
ttcggggcggtgcgtcaaatcgcaacttctgtac
1-5tRNA-Arg(tct)[172537,172611]
ggccacgtgatgaaatggatatcatattcgacttctaatacgaaattccg
agttcgatcctcggcgtggctgcca
1-6tRNA-Gly(tcc)[172612,172684]
ggcacattgatgaagttggttatcatactgcctccaagcaagattccc
ggattcgaattccggatgtgtca
1-7tRNA-Val(aac)[172708,172781]
gatcccttagctcagttggaagagttttgcctaacacgcagaaggtcgc
aggatcgaaacctgcaggatcac

>EU304328.2 Ostreococcus tauri virus OtV5, complete genome

1-1tRNA-Gln(ttg)[145641,145713]
agcttctatggtgtagtggttaacacagtgactttgaatccaccgccaca
ggttcaatccctgttggaagctt
1-2tRNA-Asn(gtt)[145817,145890]
tcactcatcgtctagtggtttaggacaatcggctgttaaccggttaacca
gggttcgaatccctgtgagtgaac
1-3tRNA-Thr(agt)[145893,145966]
tgcatctatggccaagtggtaaggcgtctcttagtaaggagaagatcgt
gcgttcgaaccgcactagatgcat

>DQ491002.1 Paramecium bursaria Chlorella virus NY2A Chlorella virus NY2A ctg_13 genomic
sequence

1-1tRNA-Leu(taa)[194698,194778]
gtgtcgttgggggagtagtcaaaccaggagacttaagttctccgcctc
ggcttcgtcggtgcaaatccggcacgacaca
1-2tRNA-Leu(caa)[194921,195006]
gccaggatggccgagttggttaaggcgatcgctcaagagcgattggatg
ttatgtccgctaggttcgagccctacttctggcac

1-3tRNA-Arg(tct)[195029,195103]
ggccacgtgatgaaatggatatcatattcgacttctaatacgaaatttccg
agttcgatcctcggcgtggctgcca

1-4tRNA-Gly(tcc)[195104,195176]
ggcacattgatgaagttggttatcacttgcctccaagcaagattccc
ggattcgaattccggatgtgtca

1-5tRNA-Asn(gtt)[195201,195272]
gaccctatggtgaaacggttatcacaggaggctgtaaccaccggtcgc
agttcgattctgcgtggggtcg

1-6tRNA-Lys(ctt)[195382,195457]
gcccgcttagctcagcatggcagagcgctagactcttaactagtggtc
gtgcgttcaaatacgacagcgggtac

1-7tRNA-Val(aac)[195482,195555]
gatcccttagctcagttggaagagttttgcctaacacgcagaaggcgc
aggatcgaaacctgcaggatcac

>FN600414.1 *Ostreococcus tauri* virus 2, complete genome

1-1tRNA-Gln(ttg)[136163,136236]
agctcttatagttagtggatcatcactttggactttgaatccaacaacct
tggttcaatccaggtaggagctt

1-2tRNA-Asn(gtt)[136348,136422]
tttcttgtaactcaatcggaagagtgtagcactgtaatcgtaaagtag
cgagatcgaaactcgccaaggaaagt

1-3tRNA-Thr(agt)[136426,136499]
tgcatttatggccaagtggtaaggcgtctcttagtaaggagaagatcgt
gcgttcgaaccgcactagatgcat

>HM004431.1 *Ostreococcus lucimarinus* virus OIV1, complete genome

1-1tRNA-Gln(ttg)[145408,145494]
agcttttatggtgtagtggaactgcggacttgactttaacgaagac
gatccgccaccctaggttcgaatcctagtagaagctt

1-2tRNA-Leu(tag)[145498,145585]
ccagtgttagctcagttggaagagcagtggttagtagtatgatatag
atctccacgggtcgggtgttcgaatcatccacactgga

1-3tRNA-Asn(gtt)[145589,145664]
ttcccttgtaactcagttggttagagtgttcgactgtaatcgagaagcc
accggttcgaatccggtcaagggaga

1-4tRNA-Thr(agt)[145669,145741]
gcacctgtagcatagtggttaatgcgcctcttagtaaggaggagaccgc
gtgttcgaatcacgccaggtgca

>HM004432.1 *Bathycoccus* sp. RCC1105 virus BpV1, complete genome

1-1tRNA-Leu(aag)[131783,131864]
gatgccgtggccgagtggtctaaggccagattaaggctctggttcgga
agagcgcagggtcaaactctgtcggcatcacc

1-2tRNA-Asn(gtt)[131980,132055]
ttctctgtaactcagttggttagagtgtgcgactgtaatcgcaagtc

accggttcaactcgggtcgagagagt

>HM004429.1 *Micromonas* sp. RCC1109 virus MpV1, complete genome

1-tRNA-Ile(tat)[136710,136783]

gttcttatagctcagttggttagagcgtggcttataacccaaggtca

cgggttcgagccccgttgggaaca

1-2tRNA-Gln(ttg)[138249,138322]

ggctctcatagtagtaggtcaacactgtggactttgaatccaccacacct

aggttcgactcctagtagggagctt

1-3tRNA-Tyr(gta)[138325,138398]

cctctcttagctcagttgggagagcagtggtgtagttccaagggtcag

gtgttcgattcacctagagaggac

1-4tRNA-Asn(gtt)[138403,138476]

tcttccatagctcagttggttagagcgtgcgactgttaatcgcaaggtcat

cgggttcgaacccggttgaagagc

1-5tRNA-Leu(taa)[157972,158055]

tgctgagatgccccagtggtctaaggggacgtcttaagaacgtctggcg

caagcctcacgggttcgaacccggttctcagcat

1-6tRNA-Thr(agt)[158059,158130]

gcactcatagctcagggtagagcgttaagtttagtaagcttaaggtcaag

ggttcaaataccctttgagtga

>KC662249.1 *Phaeocystis globosa* virus strain 16T, complete genome

1-tRNA-Leu(caa)[176759,176838]

gtattggtgcccgagtggttaagggtaaattcaagcatatatggcgaaa

gcctcgtgggttcgaatccccccaataca

1-2tRNA-Ile(tat)[408944,409017]

gttctattaactcagttggttagagtcggtcttatagccgaaagtcg

tgggttcgagtcacacatagaaca

1-3tRNA-Gln(ttg)[409027,409100]

agttcccatagtagtaggttatcacggtggttttgataaccacaaactc

tgggtcgaatccaggtgggaactt

1-4tRNA-Asn(gtt)[409104,409179]

tgctccatagctcagttggtcagagcgtgcggctgttaaccgcgaggtc

accggttcgaaaccggttgaggcgt

1-5tRNA-Leu(taa)[409206,409291]

tatcacggtgtccgagctcgtttaaaggagcaagatttaagacctgtgc

gttcgcgctcgcgggttcgaatcccccccgatgat

1-6tRNA-Asn(gtt)[409295,409370]

tgctccatagctcagttggtcagagcgtgcggctgttaaccgcgaggtc

accggttcgaaaccggttgaggcgt

1-7tRNA-Leu(taa)[409393,409476]

gtcacggtgtccgagctcgtttaaaggagcaagatttaagacctgtgcg

ttcgcgctcgcgggttcgaatcccccccgatgaca

1-8tRNA-Arg(tct)[410486,410560]

tgcccgctgacgcaatggatagcgtgccagacttctaacttgaagttg

cggttcgagtcgccgtcgtggtaa

>KJ645900.1 Aureococcus anophagefferens virus isolate BtV-01, complete genome

1-1tRNA-Thr(agt)c[118324,118395]

gcttttggcttaatggtaaagcgacatcctagtagatgtagattccg

cggtcgattcgcgcaaaagct

1-2tRNA-Arg(tct)c[148317,148390]

gccctattggcgaaattggatatcggtccgccttctaagcggaagattc

tgggttcgatccccagatagggtt

1-3tRNA-Leu(taa)[322252,322333]

atctgttggcggagtggtctaacgcgccgatttaagccccggctccta

acgaggcgcaagttcgaaccttgcaacagata

1-4tRNA-Ile(tat)[322371,322446]

ttgcctataattcaatctggttagaatgaccgtcttataagcggtttat

atgggttcaaattcccattaggcgaat

1-5tRNA-Ser(tga)[322625,322707]

gatactgtgatggaattggtagacatgtcagacttgaaatctgttgcccg

atgggcgtgagcgttcgagtcgctccagtatct

1-6tRNA-Leu(taa)[322727,322812]

ccgtctatagttcagtagaagaacgttcgactgtaatggttaagcatat

atcgaaagtcgctgggtgcaagtcagctagacgga

1-7tRNA-Gln(ttg)[322836,322906]

gctcatatggtgtaatggtagcactaaagatttgattcttcaatttca

gttcgattctgaatatgagct

>KP874737.1 Ostreococcus lucimarinus virus 7 isolate OIV7, complete genome

1-1tRNA-Gln(ttg)[136442,136528]

agctttatgggtgtagtggaactgcggactttgactttaacgaagac

gatccgccaccctaggttcgaatcctagtagaagctt

1-2tRNA-Leu(tag)[136532,136619]

ccagtgtagctcagttggaagagcagtggttagtagtagtatgatatag

atctccacgggtcgggtgttcgaatcatccacactgga

1-3tRNA-Asn(gtt)[136623,136698]

ttcccttgtaactcagttggttagagtggtcactgttaatcgagaagcc

accggttcgaatccggtcaagggaga

1-4tRNA-Thr(agt)[136703,136775]

gcacctgtagcatagtggttaatgcgcctcttagtaaggaggagaccgc

gtgttcgaatcacgccaggtgca

>KT820662.1 Chrysochromulina ericina virus isolate CeV-01B, complete genome

1-1tRNA-Leu(caa)c[74479,74562]

tgtatggatgcccagtggtctaaggggtagactcaagttctactgtcg

taagactcgtgggttcgaatccactccatacaa

1-2tRNA-Ser(tga)[235796,235880]

tgacatcgtgcccagttggttaaggggatggactgaaatccattgggc

attgccctcgcgagttcgaatctcgtcgatgtcgt

1-3tRNA-Ala(tgc)[235890,235962]

gggatgtagatcaattgtagatcgctcgctttgcatgcgagaggtacc

gggatcaaaaccagcatctcca

1-4tRNA-Ser(gct)[235968,236051]

tgacaccgtggccgagtggttaaggcagtgactgctaattccatttcct

atgggatcgcgagttcgaatctcgtcgggtcga

1-5tRNA-Gly(tcc)c[383694,383764]

gcactattggttagtggaacatgttcgcctccaagcgcgccagg

gttcgattccctgatatgca

1-6tRNA-Ile(tat)[423375,423450]

tgctcgcgtaactcagttggttagagtgttggtcttatgagccaaaagtc

cgcggttcgagcccgcgctgagcat

1-7tRNA-Lys(ttt)[423493,423567]

ttctcggataactcagttggttagagtgggcgtcttttggggtctagtc

ctagttcgagtcaggttcgagaaa

1-8tRNA-Gln(ttg)[423572,423643]

gctcctgtagttagaggtaatcactgaggactttgaatcctccaacgcc

agttcgaatctggccgggagct

1-9tRNA-Leu(taa)[423766,423847]

gcatggatgcccagtggtctaaggggcagacttaagatctgctggcga

aagcctcgtgggttcaaaccctcctcgca

1-10tRNA-Asn(gtt)[423964,424038]

gctccgttagctcagttggttagagcgtgcggctgtaaccgcaatgtca

ctggttcgatcccagtagcgagcgc

1-11tRNA-Lys(ttt)[424072,424144]

gttccttagctcagttggttagagcgacgacttttaatcgtgtggccag

cggttcgagcccgctaggaata

1-12tRNA-Arg(tct)[424179,424252]

gcccctgtggcgaattggatagcgaccagacttctaactcgggggttg

cgagttcgaatctcgccaggggtt

>KP874735.1 *Ostreococcus mediterraneus* virus 1 isolate OmV1, complete genome

1-1tRNA-Gln(ttg)[150843,150915]

agcttctatggttagtggaacacagtgactttgaatccaccgccaca

ggttcgatccctgttgaagctt

1-2tRNA-Asn(gtt)[151019,151092]

tcactcatcgtctagtggttaggacaatcggtgtaaccggttaaccg

gggttcgaatccctgtgagtgaac

1-3tRNA-Thr(agt)[151095,151168]

tgcatctatggccaagtggtaaggcgtctcttagtaaggagaagatcgt

gcgttcgaaccgcactagatgcat

>KP874736.1 *Ostreococcus lucimarinus* virus 2 isolate Olv2, complete genome

1-1tRNA-Gln(ttg)[145281,145354]

agctcttatagtgtagtggtcatcactttggactttgaatccaacaacc

tggttcaaatccaggtaggagctt

1-2tRNA-Asn(gtt)[145466,145540]

tttcttgtaactcaatcggaagagtgtacgactgttaatcgtaaagtag
cgagatcgaaactcgccaaggaagt
1-3tRNA-Thr(agt)[145544,145617]
tgcatctatggccaagtggtaaggcgtctcttagtaaggagaagatcgt
gcgttcgaaccgcactagatgcat

>LC015649.1 Yellowstone lake phycodnavirus 3 DNA, complete genome, isolate: 3

1-1tRNA-Gln(ctg)[52689,52762]
gggttccatagtataacggttagtacatcagactctgactctgtaaatgc
gtgttcgattcacgctggaacctt
1-3tRNA-His(atg)[55378,55477]
tgctccaataacacaactggtagtgatcggtcttatgaaaattgaatt
ttcatgcaagtgagccgaaaatccgagttcgatcctcggttggagcagcc
1-4tRNA-Arg(tct)[55483,55557]
gactctgtggcgaaattggatatcgcggtgggacttctaatacccgagattg
cgggttcaaaccgccagagccgc
1-5tRNA-Leu(taa)[55560,55646]
ttcatcagtgccgagttgggtctaaggaggagacttaagatctcctgtg
cgcaagcacgcgtgggttcgaacccacclgalgaaa

>LC015648.1 Yellowstone lake phycodnavirus 2 DNA, complete genome, isolate: 2

1-1tRNA-Thr(agt)c[79624,79698]
tgctttcgtagctcaattggtagagcacccgttagtaagcgggaggtaa
tgagatcaaagctcatcgaaagcag
1-2tRNA-Pro(agg)c[79979,80077]
ggctctgtagcacaattggatagtcaccagccttctaggaggaccttcg
gtccgtcagtgtaagctggaggttcggggtcgacccccgccagagtca
1-3tRNA-Gln(ttg)c[80084,80160]
gcatcgggtgccgagcctggttcaaggagagatctgttggtgtttcacc
acacgggttcaatcccgtccgatgca
1-4tRNA-Ile(tat)c[80161,80234]
gctctgtaactcagatggttagagtgttggtcttatgtccaaaagtcg
tgagttcaatcctcaccgggagca

>LC015647.1 Yellowstone lake phycodnavirus 1 DNA, complete genome, isolate: 1

1-1tRNA-Leu(taa)[60048,60130]
agtagtgtaggagagtgggtcaaatccgttcacttaagatgcaatacctt
cgcgtttcgcgggttcgaatcccgcgctacta
1-2tRNA-Ile(tat)[60135,60209]
gttctagtaactcagttggtagagtgcgggtcttatgagccgaagtcg
cgggttcgacccccgcctagaacac
1-3tRNA-Glu(ttc)[60211,60300]
tggccctgtggcataatcgataatgcgtcagccttctactcaagagaca
gcgagctgaagattgcgggttcgacccccgccagggcat
1-4tRNA-Gly(tcc)[60823,60894]
gcgcatatagtatagtggttagtacagaaccctccaaggttcaaggcgg
ggttcaattccccgtgtcgca

1-5tRNA-Thr(agt)[60898,60970]
gcctctgtagctcaattggttagagcactcggttagtaagcgagaggtatt
gagatcaaaactcaacggaggca
1-6tRNA-Gln(ctg)[60976,61047]
ggttcatagtataacggtagtacacaggactctgaatcctgtaatggg
agttcgattctccctggaacct
1-7tRNA-Asn(gtt)[61048,61122]
tcctctataactcagctggttagagtgtaggctgttaacctgaaagtcg
caggttcgatccctgctggaggagc

>KX857749.1 Only Syngen Nebraska virus 5, complete genome

1-1tRNA-Leu(taa)[166543,166628]
gatagtgtatgcaagtggtaaagcacctcgacttaagatcgagtcacctt
tcgggttcgcgggttcgacccccgcgctatcacca
1-2tRNA-Ile(tat)[166629,166710]
tcgacattaagataacggtcattcgctgggtcttatacatttatgaaagc
ctggaacccgggttcaactcccgatgtcgaa
1-3tRNA-Leu(taa)[166734,166819]
gatagtgtatgcaagtggtaaagcacctcgacttaagatcgagtcacctt
tcgggttcgcgggttcgacccccgcgctatcacca
1-4tRNA-Ile(tat)[166820,166901]
tcgacattaagataacggtcattcgctgggtcttatacatttatgaaagc
ctggaacccgggttcaactcccgatgtcgaa
1-5tRNA-Leu(taa)[166925,167010]
gatagtgtatgcaagtggtaaagcacctcgacttaagatcgagtcacctt
tcgggttcgcgggttcgacccccgcgctatcacca
1-6tRNA-Asn(gtt)[167117,167190]
gagccatagctcagttggttagagcgttcgactgttaatcgagaggtcg
tcggttcgaacccgactggtgtcg
1-7tRNA-Gly(tcc)[167193,167265]
tggcacattaatataacggtagtataacagcctccaagctgtaagcctg
ggttcgactcccagatgtgtcaa
1-8tRNA-Asn(gtt)[167288,167361]
gagccatagctcagttggttagagcgttcgactgttaatcgagaggtcg
tcggttcgaacccgactggtgtcg
1-9tRNA-Lys(ctt)[167364,167438]
tgcccgctagctcagtcggttagagcgccagactcttaatctggtggtcg
tgggttcgagccccacggtgggcaa
1-10tRNA-Arg(tct)[167464,167537]
tgtctgtatggtgtaatggatagcaccttgagcttctaactcaatgatcc
gagttcgatcctcggtacagatat
1-11tRNA-Arg(tct)[167563,167636]
tgtctgtatggtgtaatggatagcaccttgagcttctaactcaatgatcc
gagttcgatcctcggtacagatat
1-12tRNA-Asp(gtc)[168747,168819]

gacgaattagtagtggttagtatccctgcctgtcacgcaggagaccgg
 ggttcaattccccgattcgtcgc
 1-13tRNA-Leu(caa)[168820,168903]
 gatagtgtagtcaagtgggtcaaagcgctggctcaagatccagtccttc
 gggttcgcgggttcgactcccgctcgtatcacca
 1-14tRNA-Thr(tgt)[168904,168976]
 gccggttagcatagtggtattgcaccagcttctaactggaggccggg
 agttcgatcctccaatcggcac

*Podoviridae

>AF125520.1 Bacteriophage 933W, complete genome

1-1tRNA-Met(cat)[21120,21195]
 gccctttagctcagtggtgagagcgagcgactcataatcgccaggtcgc
 tggttcaatccagcaaggccacca
 1-2tRNA-Arg(tcg)[21205,21281]
 ccgccattagctcatcgggacagagcgccagccttgaagctggctgcgc
 ggggttcgagtcctcgatggcggtcca
 1-3tRNA-Arg(tct)[21295,21371]
 gcgttgtagctcagccggacagagcaattgccttctgagcaatcggtca
 ctggttcgaatccagtacaacgcgcca

>AF157835.1 Acyrthosiphon pisum bacteriophage APSE-1, complete genome

1-1tRNA-Lys(ttt)[32824,32898]
 gggctgtagcttaacgatagagcagagggttttagcccttcgcttgcg
 ggtttgagtcctgcacaggccgcca

>AY078382.2 Pseudomonas aeruginosa phage PaP3, complete genome

1-1tRNA-Asn(gtt)[1628,1703]
 tgggatgtagctcagttggttagagcaggagctgtaactctcaggtcgt
 aggttcgagccctaccgtcccagcca
 1-2tRNA-Asp(gtc)[1708,1783]
 ggccattaacttagcggtagagtgtcccctgtctaggagaagccgt
 cgggtcgaatccgacatgggtcgcca
 1-3tRNA-Tyr(gta)[1789,1875]
 ggtcgtttagaggtagatggctactaccatccggtgtaaccggagcgc
 ctaggctagaggttcaattcctcctcgaccacca
 1-4tRNA-Pro(tgg)[1880,1955]
 ctctcgtagctcagtcgtggttagagtcctgccttgggaagcaggaggtc
 gtaggttcgaatcctaccgggtgac

>AY349011.3 Burkholderia cepacia phage Bcep22, complete genome

1-1tRNA-Ser(tga)[8351,8439]
 ggaagcgttgagcattggcaggctccgcggattgaaatccgtcatacgt
 gtgagcgtattgggggttcgactcccccgcttcgcca
 1-2tRNA-Ala(tgc)c[53700,53799]
 gtgcggttcgagcgccacggccttcgacgcggcggttctgcgcgccg
 gctgatagatgccctcgggcaggttggcgatcgcttggcgaatgccgcg

>AY052766.1 Salmonella typhimurium bacteriophage ST64T, complete genome

1-tRNA-Asn(gtt)[21039,21113]
gggtcagtcgtataaaggtcattacggaaggctgtaaccttctatcgt
ggttcgagtcacgctgtcccacca

>AY095314.2 Vibriophage VpV262, complete genome
1-tRNA-Pro(tgg)c[45250,45327]
cggggtatgctcgagtcgttagcgaggtggcttggagccagcggtc
gtaggttcgaatcctactaccccgacca

>AP000363.1 Enterobacteria phage VT2-Sakai proviral DNA, complete genome
1-tRNA-Met(cat)[20611,20686]
ggcccttagctcagtggtgagagcgagcgactcataatgccaggtcgc
tggttcaaatccagcaagggccacca
1-2tRNA-Arg(tcg)[20696,20772]
ccgccattagctcatcgggacagagcgccagccttcgaagctggctgcgc
ggggttcgagtcctcgtatggcgggtcca
1-3tRNA-Arg(tct)[20786,20862]
gcgttgtagctcagccggacagagcaattgccttctgagcaatcgggtca
ctggttcgaatccagtacaacgcgcca

>AF547987.1 Enterobacteria phage Sf6, complete genome
1-tRNA-Asn(gtt)[36065,36139]
gggtcagtcgtataaaggtcattacggaaggctgtaaccttctatcgt
ggttcgagtcacgctgtcccacca
1-2tRNA-Thr(tgt)[36145,36220]
gctggttagctccaatggttagagcagtcgccttgaagcgaatgggttag
cggttcaagtcggttaaccagcacca

>DQ126339.2 Enterobacteria phage phiV10, complete genome
1-tRNA-Arg(tct)c[2853,2929]
gtggcattagctcagttggacagagcaaccgcttctaagcggttggtcg
caggttcgaatcctgcatgccacgcca

>EF056009.1 Enterobacteria phage N4, complete genome
1-tRNA-Asn(gtt)[32451,32525]
gatggttagctcagtggttagagcagttggctgtaaccaactggtcgat
ggttcgaatccatccaccatcgcca
1-2tRNA-Ser(tga)[32531,32620]
ggaaggtgtcagagaggccgattgtacgtgacttgaaatcaggaggcgc
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1-7tRNA-Ser(tga)[67660,67745]
ggaagattccgctcagttggtgggcaatccggttgaacccggaggtgctg
gtaacggtaggggttcgactcctcaatcttccgcca
1-8tRNA-Asn(gtt)[67751,67826]
gatgggtagtctaactcggtaaagcaccagactgttaatctgcgacatta
gggttcaaatccctatcccatcgcca
1-9tRNA-Arg(tct)[68158,68234]
gcatccttagctcagcaggatagagcagtagccttctaagctatttgtca
ctggttcgaatccagtagggtgtacca
1-10tRNA-Leu(taa)[68237,68322]
gggagtatggtgaaatcggtagacacaaggatttaaatccctcggctt
atagctgtacgagttcgagtctcgttactccacca
>KC139520.1 *Salmonella* phage FSL SP-076, complete genome
1-1tRNA-Lys(ttt)[61575,61651]
ggattgttaactcagttggttagagtatctcacttttaagagagggtcg
aaggttcgagtccttcacaatccacca
1-2tRNA-Pro(tgg)[61656,61732]

caggatatagctcagcttggttagagcatctgcttgggagcagactgtca
 gaggttcaagtcctcttatcctgacca
 1-3tRNA-Tyr(gta)[61739,61822]
 gtggggttggcagagtggtcgattgcgggggactgtaaatcctcactgaa
 aggcgcggtggttcgaatccatcatcccacacca
 1-4tRNA-Ser(gct)[61829,61914]
 ggaagattggcagagcggaatgcagcaccctgctaagggtgacaaccga
 aaggttgcataggttcaaactctatatcttccgcca
 1-5tRNA-Met(cat)[62060,62137]
 ggttccatagctcaagttggttagagcactcgggtcataaccgagagtgt
 ccaggttcgaaaccgggtggaaccacca
 1-6tRNA-Ile(gat)[62141,62217]
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 ctagttcgaatctagttgagacaacca
 1-7tRNA-Ser(tga)[62529,62614]
 ggaagattccgctcagtggtgggcaatccggttgaaccgagggtgctg
 gtaacggtaggggttcgactcctcaatcttccgcca
 1-8tRNA-Asn(gtt)[62620,62695]
 gatgggtagctaactcggtaaagcagcagactgttaatctgtgatatta
 gggttcaaatccctatcccatcgcca
 1-9tRNA-Arg(tct)[63027,63103]
 gcatccttagctcagttggatagagcagtagccttctaagctattgtca
 ctggttcgaatccagtaggggtgacca
 1-10tRNA-Leu(taa)[63106,63191]
 gggagtatggtgaaatcggtagacacaagggaattaaaatccctcgggtt
 atagctgtacgagttcagctctcgttactcccacca
 >KC821608.1 Cellulophaga phage phi19:3, complete genome
 1-1tRNA-Cys(gca)c[67343,67415]
 gttgttactcaagtggtaagaggttagtctgcaaaactaatatcgtg
 agttcgaatctaccaacaactc
 >KC821614.1 Cellulophaga phage phi38:1, complete genome
 1-2tRNA-Glu(ttc)c[28604,28676]
 gctcttttcgtctagcggtaaggacattcggttttcatccgaaaaacata
 ggttcgaatcctatagaggtac
 1-3tRNA-Glu(ttc)c[30574,30646]
 gctcttttcgtctagcggtaaggacattcggttttcatccgaaaaacata
 ggttcgaatcctatagaggtac
 1-4tRNA-Lys(ttt)[35522,35595]
 gccctttagcaaacaggtttaggcaaccgtcttttaaacggtggggct
 aggttcgattcctagcaggggcac
 1-5tRNA-Ile(gat)[35644,35717]
 tggagtatagctcagcggtagagcactcccctgatacgggagatgtcgt
 aggttcgaaaccttactccaac
 1-6tRNA-Gly(tcc)[35805,35878]

gcgtaagaggccatagtggaatggcgcctgcctccaagtaggagatagc
gagttcgaacctcgcttacgctc

1-7tRNA-Met(cat)[35888,35957]

tgtgggtggtcgtgggtaccagaggcctcataagtccttatagatgggt
tcgactcccataccgccac

1-8tRNA-Asp(gtc)[36032,36109]

ggctctaataagcgtgttggaacacgaattgcactgtcactgctctaaa
acgagggttcgaatccctcttagaccgc

1-9tRNA-Thr(tgt)[36119,36193]

gcactaatgactgaataggaaatggacttcattgtaacgaagataatt
cgggttcgactcctgattagtgtc

1-10tRNA-Val(tac)[36402,36476]

accagattagctcagcggtttagagcagctctttacaaggagaaggctc
atagttcgaatctatcattgtgtac

1-11tRNA-Arg(tct)[36537,36608]

acctctatagtttaaaggaagaatacggcgttctaacgctatggtcggg
gttcgaatccctgtagagggtc

1-12tRNA-Ser(tga)[37020,37110]

ggaagagtaagccaagtaggtctactggtcgctgtcttgaaaacagttgg
ggtttaaaagcccgtgtgggttcgagccccacttcttccgc

1-13tRNA-Ser(gct)[37115,37200]

agagaggtgtctgagtgcttaaggtactacttgcctaaagtagtgggt
taacgcctccgagggttcgaatcccttcttctac

1-14tRNA-Asn(gtt)[37209,37281]

ggctaggtagctcagaggaagagcaggcgcctgtaagcgtcaggtcgag
atatcgtaattctccctagcctc

1-15tRNA-Phe(gaa)[37440,37513]

gcgtagaagctaacttggtagaagcactggcttgaaatcccagaggagt
agggtcgattcctacatcgcac

1-16tRNA-Pro(tgg)[38141,38213]

cgagtagtgacaaaattggcacgtgccaccttggacgtcggagaatgca
ggttcgatccctgcctactcgac

1-17tRNA-Glu(ttc)[38222,38297]

gctatcgtcttctaaatggaataggaatccacccttcaaggtgtgcaat
gcgagttcaagtcgtcgatagtac

1-18tRNA-Gln(ttg)[38343,38415]

tggagtatgatgaacggtagcatgactggtttgagccagttcgtcgg
ggttcgaatccctgtactccatc

1-19tRNA-His(gtg)[38426,38502]

cctccgttgcgccaattggaaaggcggtaagctgtgaacttgattaca
tgggttcgattcccatcaggttgcca

1-20tRNA-Leu(taa)[38631,38714]

gcatccatgggtgaaaggctatacactacaggcttaaacctgtcgccg
aaaggattgggggttcgaatccctctggatgcac

1-21tRNA-Arg(acg)[38721,38793]
 acttctatagcttaacgaaaagcgttccgctacgaacggatagattggg
 ggttcgaatccctctagaagttc
 >KC821632.1 Cellulophaga phage phi4:1, complete genome
 1-1tRNA-Pro(tgg)[87196,87272]
 cgggtaatagaggagctcggtttatctcgctgcatgtggatgcagagca
 cgcaggttcgaatcctgcttatccgac
 1-2tRNA-Glu(ttc)[87352,87424]
 gctgccatcgtctaacggctaggacctcaggtttcatcctggaatcgg
 agttcgattctccgtggcagtac
 1-3tRNA-Gln(ttg)[87495,87568]
 tggaatatggtgaattggtaacacgtctggttttggccagaagagtgg
 gggttcgagaccctctattccaac
 1-4tRNA-His(gtg)[87570,87644]
 gtgttagaagctaaagtggcgaagcgtctggttggtccagaagatag
 tgagttcgagctcatttaacaccc
 1-5tRNA-Leu(tag)[87703,87778]
 gcagaggtgggtaaactggtaaagccgccgatttaggatcgggagttct
 gagggttcgactccctctctctgtac
 1-6tRNA-Leu(taa)[87785,87866]
 gccccaatggtgaaactggtatacacgtagcacttaaatgctatgctt
 aggcttcaggttcgatccctgcttggggtag
 1-7tRNA-Arg(acg)[87871,87944]
 ttctcatagtttaactggaaaaacacagagtacggcctttgagagtag
 gggttcgagtcctttgagaaaac
 1-8tRNA-Ala(tgc)[88170,88243]
 ggcccagtagctaaactggcttagcacctccttgcaaggagaagtatgt
 gggttcgagccccatctggccac
 1-9tRNA-Lys(ttt)[88325,88397]
 accctcgtagcttaatggcaaagctcctcttttaaagaggcgaccgca
 agatcgggtactgtcggggtag
 1-10tRNA-Ile(gat)[88687,88761]
 aggaatatagctcagttggttagagtacttcgctgataccgaagatgtca
 caagttcgaatctgttattctac
 1-11tRNA-Gly(tcc)[88865,88939]
 gcagcaatcgcatagcggcctattgcacctgacttccaatcaggatctcg
 tgagttcgaatctcacttgctgcac
 1-12tRNA-Met(cat)[88944,89018]
 agcgagtagagcagctggttagctcgctaggctcataacctagaggtcg
 ggagttcgagctcccccttcgccac
 1-13tRNA-Asp(gtc)[89097,89170]
 agtctatcggtccagtgagtgacgctgccctgtcacggcagagatcac
 gggttcgagtcctgatatagactgc
 1-14tRNA-Thr(tgt)[89249,89323]

tcctacgtagctcaattggaggagcactggtttgtaaaccaaaggtg
tcggttcgagtcgacctagggatc
1-15tRNA-Val(tac)[89470,89544]
accagattagctcaggggttagagcaactctttacaaggagaaggtcg
atagttcgaatctatcatttggtac
1-16tRNA-Arg(tct)[89555,89628]
gggggattagttaactggaaaaactataggctctatcctatcgagtag
gggttcgaatcccttatccccttc
1-17tRNA-Met(cat)[89638,89712]
ggcctttagctcagttggtagagcagtcactcataatgagaaggtct
caggttcgagtcctgactaggccac
1-19tRNA-Tyr(gta)[89926,90010]
gggacggttgctcggctggaaggcgagcagactgtaaattctgtaatcc
actaggaatggaggttcgagtcctcctcgccccac
1-20tRNA-Ser(gct)[90280,90367]
agaaaggtgtcagagtggttattgagctaggtgctaacttagtgaggt
gaaataccttcgtgggttcgaatccatccttcttc
1-21tRNA-Asn(gtt)[90397,90485]
tcttgagttgccgtagttggccgaacggtccagactgttaatctggtgag
atctatcctcatcgtaggttcgaatcctacctaagagc
1-22tRNA-Trp(cca)[90629,90702]
acttgagtagctcagttggttagagcagtggtcctcaaaaccaaaggtcgt
aggttcgagtcctacctctctgtgc
1-23tRNA-Phe(gaa)[90724,90798]
ggggtttagctgagttggtacaagcgtccgattgaagctcggaagtacg
aagggtcgaagccttcctccccac
1-24tRNA-Ile(gat)[143233,143308]
aatcgggtagttcaattggtagaacatcacactgataatgtgaagttgt
gggttcgagtcctccatcccgattacca

>KF856712.1 Pseudomonas phage phiIBB-PAA2, complete genome

1-1tRNA-Pro(tgg)c[44350,44426]
ctcctcgtagctcagttggttagagtcctgtcttgacacaggaggtcg
taggttcgagtcctaccgggtgacca
1-2tRNA-Asp(gtc)c[44431,44506]
ggccatttaactcagcgggttagagtgctcccctgtctaggagaagccgt
cgggttcgaatccgacatgggtcgcca
1-3tRNA-Ile(gat)c[44511,44586]
tgggatgtagctcagttggttagagcaggagccgataactctcaggtcgt
aggttcgagccctaccgtcccaacca

>HG518155.1 Pseudomonas phage TL complete genome

1-1tRNA-Pro(tgg)c[44641,44717]
ctcctcgtagctcagttggttagagtcctgtcttgacacaggaggtcg
taggttcgagtcctaccgggtgacca
1-2tRNA-Tyr(gta)c[44722,44808]

ggtcgtttagaggtatggctactaccatccggtgtaaccggacgc
 cttaggctagaggtcaattccttcctcgaccacca
 1–3tRNA–Asn(gtt)c[44814,44889]
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 >KF787095.1 Achromobacter phage JWA1alpha, complete genome
 1–1tRNA–Arg(tct)[18757,18852]
 ggcgtagtggtggaattggtaaacacagagtccttctccggactccgagc
 gtagccgcgaggtgctcttcgaggttcgactcctgcctacaatgcc
 >KF981730.1 Escherichia phage KBNP1711, complete genome
 1–1tRNA–Arg(tct)c[66381,66455]
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 ggttcgagtcctagtgaggacgcca
 >KF806588.1 Erwinia phage Ea9–2, complete genome
 1–1tRNA–Asn(gtt)[41009,41084]
 gacgggttagttcagcaggtagaacggtggactgtaatccatatgtcat
 cggttcgaatccggtactcgtcgcca
 1–2tRNA–Glu(ttc)[41091,41167]
 attcccgtagacaaattggtatagtcaccacactttcactgtgggatctg
 tgggtcaagtcccatcggaatgcca
 1–3tRNA–Asp(gtc)[41174,41249]
 agtcctatagttcagtcggtagaatacctccctgtcacggagaaggtcac
 gggttcgagtcggttaggactgcca
 1–4tRNA–Ile(gat)[41253,41328]
 tgctcatagctcagttggtagagcaaccgcccataagcggtaggtcac
 tgggtcaagtccagttgaagcaacca
 1–5tRNA–Tyr(gta)[41504,41585]
 gggggattagtcaagcggtcgaagacggcagactgtaaatctgttatccc
 acacggtagttcgaatctaccatccccacca
 1–6tRNA–Ser(gct)[41689,41780]
 ggaagattggctgagtggtctaaaagcgtccggtgtaaccggaaggcgg
 cgtaacagcttcccactgggtcgaatccagtatcttctcca
 1–7tRNA–Lys(ttt)[41786,41862]
 aggtcgttagctcagttggttagagcaccggacttttaacgggtgtca
 ttggttcgaggccaatacgacctacca
 >KJ192399.2 Vibrio phage CHOED, complete genome
 1–1tRNA–Asn(gtt)[55857,55933]
 ggataagaagcataagtggtatatgcgctcgctgtaagcgaagatag
 agagttcgaacctctcctgtccgcca
 1–2tRNA–Ser(gct)[55939,56028]
 agagaagtgtcccgagtggtttaaaggcctccctgtaaggaggtgggcg
 ttaatccgctccgtgggtcaaatcccactttctctgcca
 1–3tRNA–Pro(tgg)[56641,56717]
 cgggatgtaatgtcaattggtagacggctcgcttgggaagcgagaggttg

aaggttcgagtccttccatcccgacca

>KF192075.1 Escherichia phage vB_EcoP_PhAPEC5, complete genome
1-tRNA-Ile(aat)[34700,34778]
tgtccgcttagcttagactgggaaagcaaccgactaataatcggaaggtc
actggttcaatccagtagtggacacca

>KJ135004.2 Enterobacteria phage Bp4, complete genome
1-tRNA-Ile(aat)c[37009,37083]
gccacttagcttagacgggaaagcaaccgactaataatcggaaggtca
ctggttcaatccagtagtgggtac
1-2tRNA-Cys(aca)c[37785,37863]
gtgtgtgatagctcaaataggtagagcgtgaggctacagtgtgaatggt
ttgtgggttcgattcccacccatgcctac
1-3tRNA-Ala(cgc)c[38155,38226]
ggtcgaggtagcacgtaggcatgtgcagatggctgctacttctctcgctg
gttcgaatccagccccgacct

>KJ621082.2 Dinoroseobacter phage DFL12phi1, complete genome
1-tRNA-Pro(tgg)c[59148,59225]
cggaatgtaggctagctcgttaagtcgctcggttgggaccgagaaatc
gaaggttcgaatccttccattccgacca
1-2tRNA-Ile(gat)c[59229,59304]
tgtggtgtagctcagttggtagagcgttcgaccgataatcgaaatgtcgc
tggttcaagtcagccaccacaacca

>KF562340.1 Escherichia phage vB_EcoP_PhAPEC7, complete genome
1-tRNA-Ile(aat)[35085,35163]
tgtccgcttagcttagactgggaaagcaaccgactaataatcggaaggtc
actggttcaatccagtagtggacacca

>KM199771.1 Mesorhizobium phagevB_MloP_Lo5R7ANS, complete genome
1-tRNA-Leu(tag)[8569,8654]
gcgggtatggtggaattggtagacacgcttggttaggtccaagtgcctg
aaaagcttgggggttcgagtccttaccgcacca

>LN610578.1 Pseudomonas phage vB_PaeP_C2-10_Ab22, complete genome
1-tRNA-Pro(tgg)c[44812,44888]
ctctcgtagctcagttggttagagtgctgtcttgacacaggaggtcg
taggttcgagtcctaccgggtgacca
1-2tRNA-Tyr(gta)c[44893,44979]
ggtcgttagaggtagatggctactaccatccggctgtaacccggacgc
cattggctagaggttcaattccttcttcgaccacca
1-3tRNA-Asn(gtt)c[44985,45060]
tgggatgtagctcagttggtagagcaggagctgtaactctcaggtcgc
aggttcgagccctgccgtcccagcca

>KM236242.1 Escherichia phage Pollock, complete genome
1-tRNA-Pro(tgg)[64673,64749]
cggaatgtagcacagccggtagtgcactctgcttgggagcagagggtca
taggttcaatcctatcattccgacca

1-2tRNA-Met(cat)[64756,64832]
 tcccgttagcttaattggttaaagcaccgactcataatcgatgatta
 caggttcgaatcctgtcacgggaacca

1-3tRNA-Arg(tct)[64837,64912]
 gcaccccttagctcaatggatagagcagtagccttctaagctattggttac
 aggttcgaatcctgtaggatgcacca

1-4tRNA-Leu(taa)[64918,65002]
 gggagtatggtgaaattggtaaacacaaggattaaaatccctcgctta
 attgcttacgagttcgagtcctgttactcccacca

>KM044272.1 Phage vB_EcoP_SU10, complete genome

1-1tRNA-Arg(tct)c[66656,66731]
 gcgctcttagctcaatggatagagcagtagccttctaagctattggttac
 aggttcgagtcctgtaggcgccacca

>HM208303.1 Stx2 converting phage vB_EcoP_24B, complete genome

1-1tRNA-Met(cat)[21679,21754]
 ggcccttagctcagtggtgagagcgagcgactcataatcgccaggtcgc
 tggttcaaatccagcaaggccacca

1-2tRNA-Arg(tcg)[21764,21840]
 ccgcattagctcatcgggacagagcgccagccttgaagctggctgcgc
 ggggttcgagtcctcgatggcggtcca

1-3tRNA-Arg(tct)[21854,21930]
 gcgttgtagctcagccggacagagcaattgccttctgagcaatcggtca
 ctggttcgaatccagtacaacgcgcca

>KP682371.1 Escherichia phage PA2, complete genome

1-1tRNA-Met(cat)[27123,27198]
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1-2tRNA-Arg(tcg)[27208,27284]
 ccgcattagctcatcgggacagagcgccagccttgaagctggctgcgc
 ggggttcgagtcctcgatggcggtcca

1-3tRNA-Arg(tct)[27298,27374]
 gcgttgtagctcagccggacagagcaattgccttctgagcaatcggtca
 ctggttcgaatccagtacaacgcgcca

>KR063278.1 Gordonia phage GMA7, complete genome

1-1tRNA-Asn(gtt)[13362,13435]
 tgtgatatagctcaattggcagagcgctggactgttaatccggtagtga
 aggttcgagtccttctatcacagc

>KT206225.1 Mycobacterium phage Phlei, complete genome

1-1tRNA-Asn(gtt)[5706,5781]
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 aggttcgagtcctcccagatcagcca

1-2tRNA-Trp(cca)[5819,5892]
 gcgttcctagctcaattggtagagcgaggtctccaaagccgttggttcc
 aggttcgagtcctggggggcgcg

1-3tRNA-Gln(ctg)[5945,6017]
 tgctcattcgtctaaccggcaagacaccgggttctggccccggcaatcca
 ggttcaaatcctgggtgagcagc

>KF971864.1 Escherichia phage phi191, complete genome
 1-1tRNA-Arg(tct)c[10036,10112]
 gcgttgttagctcagccggacagagcaattgccttctgagcaatcgggtca
 ctggttcgaatccagtacaacgcgcca
 1-2tRNA-Arg(tcg)c[10126,10203]
 ccgccattagctcatcgggacagagcgccagccttcgaagctggctgcgc
 ggggttcgagtcctcggatggcgggtcca
 1-3tRNA-Met(cat)c[10213,10288]
 ggcccttagctcagtggtgagagcgagcgactcataatcgccaggtcgc
 tggttcaaatccagcaaggccacca

>HQ424691.1 Enterobacteria phage VT2phi_272, complete sequence
 1-1tRNA-Arg(cct)c[1320,1394]
 gtctcttagttaaattggatataacgagccccctctaagggttaattgca
 ggttcgattcctgcaggggacacca
 1-2tRNA-Met(cat)[27183,27258]
 ggcccttagctcagtggtgagagcgagcgactcataatcgccaggtcgc
 tggttcaaatccagcaaggccacca
 1-3tRNA-Arg(tcg)[27268,27344]
 ccgccattagctcatcgggacagagcgccagccttcgaagctggctgcgc
 ggggttcgagtcctcgalggcgggtcca
 1-4tRNA-Arg(tct)[27358,27434]
 gcgttgttagctcagccggacagagcaattgccttctgagcaatcgggtca
 ctggttcgaatccagtacaacgcgcca

>KT630648.2 Salmonella phage SEN22, complete genome
 1-1tRNA-Asn(gtt)[37726,37800]
 gggtcagtcgtataaaggttattacggaaggctgttaaccttctatcgt
 ggttcgagtcacgctgtcccgcga
 1-2tRNA-Thr(tgt)[37806,37881]
 gctggttagctccaatggttagagcagtcgccttgaagcgaatgggtag
 cgggtcaagtcggttaaccagcacca

>KR054029.1 Pseudomonas phage DL54, complete genome
 1-1tRNA-Ile(gat)[888,963]
 tgggatgtagctcagttggttagagcagggagccgataactctcaggtcgt
 aggttcgagccctaccgtcccaacca
 1-2tRNA-Asp(gtc)[968,1043]
 ggccattaactcagcggtagagtgtcccctgtctaggagaagccgt
 cgggtcgaatccgacatgggtcgcca
 1-3tRNA-Pro(tgg)[1048,1124]
 ctctcgtagctcagttggttagagtcctgtcttgacacaggaggtcgc
 taggttcgagtcctaccgggtgacca

>KP233880.1 Pseudomonas phage PhiCHU, complete genome

1-tRNA-Pro(tgg)c[44654,44729]
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 gtaggttcgaatcctaccgggtgac

1-tRNA-Asp(gtc)c[44734,44809]
 ggccattaactcagcggtaagagtgtcccctgtctaggagaagtctg
 gggttcgaatcccaatgggtcgcca

1-tRNA-Asn(gtt)c[44814,44889]
 tgggatgtagctcagttggttagagcaggtagctgtaactatcagtcgt
 aggttcgagccctaccgtcccagcca

>KP308307.1 Escherichia phage 172-1, complete genome

1-tRNA-Arg(tct)c[75402,75478]
 gcgccgttagctcaattgtatagacagttccttctaagaaattggttg
 gaggttagaatcctccacggtgcgcca

>KU878967.1 Salmonella phage 118970_sal4, complete genome

1-tRNA-Asn(gtt)[20486,20560]
 gggtcagtcgtataaaggtcattacggaaggctgtaaccttctatcgt
 ggttcgagtcacgctgtccagcca

1-tRNA-Thr(tgt)[20566,20641]
 gctggttagctccaatggttagagcagtcgccttgtaagcgaatgggtag
 cggttcaagtcggttaaccagcacca

>LT594300.1 Escherichia phage LM33_P1 genome assembly, chromosome: I

1-tRNA-Thr(cgt)[11104,11182]
 gtctccatagctcaaaggtagagcggcgggtcgtgatggcctattgcga
 ttagggttcgaatccccgtggagacgcca

>KU927494.1 Salmonella Phage 103203_sal5, complete genome

1-tRNA-Asn(gtt)[40369,40442]
 tgggtcagtcgtataaaggtcattacggaaggctgtaaccttctatcg
 tggttcagtcacgctgtccaga

>KX098389.2 Erwinia phage vB_EamP_Frozen, complete genome

1-tRNA-Asn(gtt)[40868,40943]
 gacgggttagctcagttggttagagcattgactgtaataattggtcat
 cggttcaaatccgtactcgtcgcca

1-tRNA-Glu(ttc)[40950,41026]
 attcccgtagacaaattggtacagtcaccacactttcactgtggagtttg
 tgggttcaagtcctccatcggaatgcca

1-tRNA-Asp(gtc)[41033,41108]
 agtcctatagttcagtcggtagaatacctccctgtcacggagaaggtcac
 gggttcgagtcctgtagactgcca

1-tRNA-Ile(gat)[41112,41187]
 tgctcatagctcagtggttagagcaaccgcccataagcggtaggtcac
 tggttcaagtcagttgaagcaacca

1-tRNA-Tyr(gta)[41446,41527]
 gggggattagtcgaagcggtcgaagacggcagactgtaaatctgttatccc
 acacggtagttcgaatctatcatccccacca

1-6tRNA-Pro(tgg)[41532,41608]
cggcatttagctcagtttggcagagcatcggcttgggagtcgagggtcg
aaggttcaaatccttcagtgccgacca

1-7tRNA-Ser(gct)[41614,41705]
ggaagattggctgagtggtctaaagcgtccggtgctaaccggaaggcgg
tgtaacagcttcccactggttcgaatccagtatcttctcca

1-8tRNA-Lys(ttt)[41711,41787]
aggtcgttagctcagttggttagagcaccggacttttaaccggatgtca
ttggttcgaggccaatacgacctacca

>AP005154.1 Stx2 converting phage II DNA, complete genome

1-1tRNA-Met(cat)[52499,52574]
ggccctttagctcagtggtgagagcgagcgactcataatcgccaggtcgc
tggttcaaatccagcaagggccacca

1-2tRNA-Arg(tcg)[52584,52660]
ccgccattagctcatcgggacagagcgccagcctcgaagctggctgcgc
ggggttcgagtcctcgatggcggtcca

1-3tRNA-Arg(tct)[52674,52750]
gcgttgtagctcagccggacagagcaattgccttctgagcaatcggtca
ctggttcgaatccagtacaacgcgcca

>AP013406.1 Uncultured Mediterranean phage uvMED DNA, complete genome, group G15, isolate:
uvMED-CGR-U-MedDCM-OCT-S46-C34

1-1tRNA-Pro(tgg)c[25878,25954]
ctgcgtgtggcggagcctggtaccgcatctgcttgggagcagaggatcg
ctggttcaaatccagccacgcagacca

>AP013543.1 Uncultured Mediterranean phage uvMED DNA, complete genome, group G8, isolate:
uvMED-CGR-U-MedDCM-OCT-S30-C28

1-1tRNA-Leu(tag)c[37322,37406]
ggggcgatggtggaattggttagacacgccagtccttaggaactggtctttt
acgaggtgaaggttcgagtccttttcgcctacca

>AP013396.1 Uncultured Mediterranean phage uvMED DNA, complete genome, group G15, isolate:
uvMED-CGR-C99-MedDCM-OCT-S44-C25

1-1tRNA-Pro(tgg)c[24212,24288]
ctgggtgtagcgaagcctggtatcgactagcttgggagctagggatcg
ttggttcaaatccaaccaccagacca

>AP013400.1 Uncultured Mediterranean phage uvMED DNA, complete genome, group G15, isolate:
uvMED-CGR-U-MedDCM-OCT-S30-C37

1-1tRNA-Pro(tgg)[32296,32372]
ctgggtgtagcgaagcctggtatcgacctggttgggaccaggggatcg
gaggttcaaatcctccaccagacca

>AP004402.1 Stx2 converting phage I DNA, complete genome

1-1tRNA-Met(cat)[52865,52940]
ggccctttagctcagtggtgagagcgagcgactcataatcgccaggtcgc
tggttcaaatccagcaagggccacca

1-2tRNA-Arg(tcg)[52950,53026]

ccgccattagctcatcgggacagagcgccagccttcgaagctggctgcgc
 ggggttcgagtcctcgatggcggcca
 1–3tRNA–Arg(tct)[53040,53116]
 gcgttgtagctcagccggacagagcaattgccttctgagcaatcggtca
 ctggttcgaatccagtacaacgcgcca
 >HF569091.1 Brucella phage Tb complete sequence, isolate BfR
 1–1tRNA–Leu(cag)c[8179,8254]
 gcgagcaggaggctcaggacggtcacggaactcagactccgttcggtct
 gctgatccttaacctgctcgttcg
 >KC556897.1 Brucella phage Tb, complete genome
 1–1tRNA–Leu(cag)c[10121,10196]
 gcgagcaggaggctcaggacggtcacggaactcagactccgttcggtct
 gctgatccttaacctgctcgttcg
 >KC438283.1 Vibrio phage VCO139, complete genome
 1–1tRNA–Arg(tct)[13346,13422]
 gtctgttagctcaattggatagagcaagatgtttctaccgtctaggtta
 taggttcgaatcctatacgggatgcca
 >KT962247.1 Cellulophaga phage phi17:2_18, complete genome
 1–1tRNA–Pro(tgg)[87649,87725]
 cgggtaatagaggagtctggtttatctcgtgcatttgggatgcagagca
 cgcaggttcgaatcctgcttatccgac
 1–2tRNA–Glu(ttc)[87805,87877]
 gctgccatcgtctaacggctaggacctcaggtttcatcctggtaatcgg
 agttcgattctccgtggcagtac
 1–3tRNA–Gln(ttg)[87948,88021]
 tggaatatggtgtaattggtaacacgtctggttttggtccagaagagtgg
 gggttcgagaccctctattccaac
 1–4tRNA–His(gtg)[88023,88097]
 gtgttagaagctaaagtggcgaagcgtctggttggtccagaagatag
 tgagttcgagtcctttaaaccac
 1–5tRNA–Leu(tag)[88156,88231]
 gcagaggtgggtaaaactggtaaaagccgccgatttaggctcgggagttct
 gagggttcgagtcctctctgtac
 1–6tRNA–Leu(taa)[88238,88319]
 gccccaatgggaaactgggtatacacgtagcacttaaaatgctatgctt
 aggcttcaggttcgatccctgcttgagtac
 1–7tRNA–Arg(acg)[88324,88397]
 ttctcatagtttaactggaaaaacacaaagtacggcctttgagagtag
 gggttcgagtcctttgagaaaac
 1–8tRNA–Ala(tgc)[88623,88696]
 ggcccagtagctaaactggcttagcacctccttgcaaggagaagtatgt
 gggttcgagccccatctggccac
 1–9tRNA–Lys(ttt)[88778,88850]
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agatcagctactgtcgggggtac
 1-10tRNA-Ile(gat)[88953,89027]
 aggaatatagctcagttggttagagtacttcgctgataccgaagatgtca
 caagttcgaatctgttattcctac
 1-11tRNA-Gly(tcc)[89131,89205]
 gcagcaatcgcatagcggcctattgcacctgacttccaatcaggatctcg
 tgagttcgaatctcacttgctgcac
 1-12tRNA-Met(cat)[89210,89284]
 agcgaggtagagcagctggtagctcgctaggctcataacctagaggtcg
 ggagttcgagtctccccttcgccac
 1-13tRNA-Asp(gtc)[89363,89436]
 agtctatcgggtccagtgagtgagcgtgccctgtcacggcagagatcac
 gggttcgagctccgtatagactgc
 1-14tRNA-Thr(tgt)[89515,89589]
 tccctacgtagctcaattggtggagcactggtttgtaaaccaaaggttg
 tcggttcgagtcggacctaggatc
 1-15tRNA-Val(tac)[89736,89810]
 accagattagctcaggggttagagaactctttacaaggagaaggtcg
 atagttcgaatctatcattgtgtac
 1-16tRNA-Arg(tct)[89821,89894]
 gggggattagtttaactggaaaaactataggcttctatcctatcgagtag
 gggttcgaatcccttatccccttc
 1-17tRNA-Met(cat)[89904,89978]
 ggccctgtagctcagttggttagagcagctcactcataatgagaaggtct
 caggttcgagtcctgactaggccac
 1-18tRNA-Tyr(gta)[90192,90276]
 gggacggttgctcggctggaagaggcgcaggactgtaaattctgtaatcc
 actaggaatggaggttcgagtcctcctcgtccac
 1-19tRNA-Ser(gct)[90546,90633]
 agaaaggtgtcagagtggtttattgagctagggtgctaacttagtggag
 gaaataccttcgtgggttcgaatccatccttcttc
 1-20tRNA-Asn(gtt)[90675,90747]
 gacagggtagctcagtggttagagcaggagctgttaactctcaggtcgtg
 ggttcgaatcccactctgtctc
 1-21tRNA-Trp(cca)[90809,90882]
 acttgagtagctcagttggttagagcagtggtctccaaaccaaaggtcgt
 aggttcgagtcctacctctcgtgc
 1-22tRNA-Phe(gaa)[90964,91038]
 ggggttgtagctgagttggtacaagcgtccgattgaagctcgaagtagc
 aagggtcgaagccttccttccac
 1-23tRNA-Ile(gat)[142711,142786]
 aatcgggtagttcaattggtagaacatcacactgataatgtgaagttgt
 gggttcgagtcctccatcccgattacca

>KC821612.1 Cellulophaga phage phi40:1, complete genome

1-2tRNA-Glu(ttc)[28604,28676]
gctcttttcgtctagcggtaaggacattcggttttcatccgaaaaacata
ggttcgaatcctatagaggtac

1-3tRNA-Glu(ttc)[30574,30646]
gctcttttcgtctagcggtaaggacattcggttttcatccgaaaaacata
ggttcgaatcctatagaggtac

1-4tRNA-Lys(ttt)[35520,35593]
gcccttgtagcaaacaggtttaggcaaccgtctttaaacggtggggct
aggttcgattcctagcaggggcac

1-5tRNA-Ile(gat)[35642,35715]
tggagtatagctcagcggtagagcactcccctgatacgggagatgtcgt
aggttcgaaaccttctactccaac

1-6tRNA-Gly(tcc)[35803,35876]
gcgtaagaggccatagtggaatggcgctgcctccaagtaggagatagc
gagttcgaacctcgtcttacgctc

1-7tRNA-Met(cat)[35886,35955]
tgtgggtggctcgtggtagaccagagggcctcataagtccttatagatgggt
tcgactcccataccgccac

1-8tRNA-Asp(gtc)[36030,36107]
ggtctaataagcgtgttggaacacgaattgcactgtcactgctctaaa
acgaggggttcgaatccctcttagaccgc

1-9tRNA-Thr(tgt)[36117,36191]
gcactaatgactgaataggaaatggacttcatttgaacgaagataatt
cgggttcgactcctgattagtgtc

1-10tRNA-Val(tac)[36400,36474]
accagattagctcagcggtttagagcagctctttacaaggagaaggtcg
atagttcgaatctatcatttggtac

1-11tRNA-Arg(tct)[36535,36606]
acctctatagtttaaaggaagaatacggcgcttctaacgctatggtcggg
gttcgaatccctgtagaggttc

1-12tRNA-Ser(tga)[37017,37107]
ggaagagtaagccaagtaggtctactggcgtgtcttgaaaacagttgg
ggtttaaaagcccgtgtgggttcgagccccacttcttccgc

1-13tRNA-Ser(gct)[37112,37197]
agagaggtgtctgagtggttaagggtactactttgctaaagtagtgggt
taacgcctccgaggttcgaatcccttcttctac

1-14tRNA-Asn(gtt)[37206,37278]
ggctaggtagctcagaggaagagcaggcgctgttaagcgtcaggtcgag
atatcgaattctccctagcctc

1-15tRNA-Phe(gaa)[37437,37510]
gcgttagaagctaacttggtagaagcactggcttgaaatcccagaggagt
aggttcgattcctacatcgac

1-16tRNA-Pro(tgg)[38137,38209]
cgagtagtgacaaaattggcacgtgccgacctggacgtcggagaatgca

ggttcgatccctgcctactcgac
 1-17tRNA-Glu(ttc)[38218,38293]
 gctatcgtcttctaaatggaataggaatccacccttcaaggtgtgcaat
 gcgagttcaagtcctcgatagtac
 1-18tRNA-Gln(ttg)[38339,38411]
 tggagtatgatgaacggtagcatgactggtttgagccagttcgtcgg
 ggttcgaatccctgtactccatc
 1-19tRNA-His(gtg)[38422,38498]
 cctccgttgcgccaattggaaaggcggtaagctgtgaacttgattaca
 tgggttcgattccatacggttgtcca
 1-20tRNA-Leu(taa)[38627,38710]
 gcatccatggtggaaggctatacactacaggctaaaacctgtcgccg
 aaaggattgggggttcgaatccctctggatgcac
 1-21tRNA-Arg(acg)[38717,38789]
 acttctatagcttaacggaaaagcgtccgctacgaacggatagattggg
 ggttcgaatccctctagaagttc
 >KJ803031.1 Dinoroseobacter phage vBDshPR2C, complete genome
 1-1tRNA-Ile(gat)[14807,14882]
 tgggtgtagctcagttgtagagcgaacgaccgataatcgttatgtcgc
 tggttcgagtccaaccaccacaacca
 1-2tRNA-Pro(tgg)[14886,14962]
 cggaatgtaggctagtctgtaagtcgctcggttgggtccgagagatcg
 taggttcgaatccctgccattccgacca
 >KP869108.1 Escherichia coli O157 typing phage 10, complete genome
 1-1tRNA-Arg(tct)[30924,31000]
 gtggcattagctcagttggacagagcaaccgccttctaagcggttggtcg
 caggttcgaatcctgcattccacgcca
 >KU197013.1 Xanthomonas phage XAJ24, complete genome
 1-1tRNA-Trp(cca)[962,1036]
 gtctcggtagtgtaatggcaacataccggcctccaaagccgtgagattag
 ggttcgagtcctaccgattcgcca
 >KU687351.1 Citrobacter phage SH5, complete genome
 1-1tRNA-Ser(tga)[11049,11127]
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 ttagggttcgaatccccgtggagacgcca
 >KY065148.1 Vibrio phage JSF3, complete genome
 1-1tRNA-Arg(tct)c[54903,54979]
 gtctgttagctcaattggatagagcaagatgtttctaccgtctaggtta
 taggttcgaatcctatacgggatgcca
 >KY626177.1 Marinomonas phage CPG1g, complete genome
 1-1tRNA-Arg(cct)[15657,15732]
 ctcatattagctcagtaggatatagcgcgattgcctcctaagcaataggta
 actggttcgagtcagttactgaga
 >KY626176.1 Marinomonas phage CPP1m, complete genome

1-tRNA-Arg(cct)[15658,15733]
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 actggttcgagtcagctatactgaga
 >KY962008.1 Escherichia phage ST31, complete genome
 1-tRNA-Thr(cgt)[10055,10133]
 gtctccatagctcaaacggtagagcggcggtcgtgatggcctattgcga
 ttagggttcgaatccccgtggagacgcca
 >MF481197.1 Marinomonas phage CB5A, complete genome
 1-tRNA-Arg(cct)[16734,16809]
 ctcaagtattagctcagcaggatagagcgattgcctcctaagcaatagtc
 actggttcgagtcagctatactgaga
 >HF569089.1 Brucella phage Fi complete sequence
 1-tRNA-Leu(cag)c[8178,8253]
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 gctgacctaactgctcgttcg
 >JN254801.1 Pseudomonas phage MR299-2, complete genome
 1-tRNA-Asn(gtt)[1605,1680]
 tgggatgtagctcagttggttagagcagatagctgtaactatccggtcgt
 aggttcgagccctaccatcccagcca
 1-2tRNA-Asp(gtc)[1685,1760]
 ggcccattaactcagcggtaagagtgtcccctgtctaggagaagtctg
 gggttcgaatcccaatgggtcgcca
 1-3tRNA-Pro(tgg)[1765,1840]
 ctctcgtagctcagctcgttagagtcctgccttgaagcaggaggtc
 gtaggttcgaatcctaccggggtgac
 >KF005320.1 Alteromonas phage vB_AmaP_AD45-P2, complete genome
 1-tRNA-Met(cat)[53590,53665]
 gccctatagctcagcgtgtagagcagacgactcataatcgtaggtcac
 tggttcaaatccggttaggggcacca
 >KC556894.1 Brucella phage Fz, complete genome
 1-tRNA-Leu(cag)c[10121,10196]
 gcgagcaggaggctcaggacggtcacggaactcagactccgttcggtct
 gctgacctaactgctcgttcg
 >KT962245.1 Cellulophaga phage phi4:1_13, complete genome
 1-tRNA-Pro(tgg)[87196,87272]
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 cgcaggttcgaatcctgcttatccgac
 1-2tRNA-Glu(ttc)[87352,87424]
 gctgccatgtctaacggctaggacctcaggtttcatcctggtaatcgg
 agttcgattctccgtggcagtac
 1-3tRNA-Gln(ttg)[87495,87568]
 tggaatatggtgtaattggtaacacgtctggttttggccagaagagtgg
 gggttcgagaccctctattccaac
 1-4tRNA-His(gtg)[87570,87644]

gtgttagaagctaaagtggcgaagcgtctggttggtccagaagatag
tgagttcgagtcctttaaaccaccc
1-5tRNA-Leu(tag)[87703,87778]
gcagaggtgggtaaaactggtaaacgcgccgatttaggatcgggagttct
gagggttcgactccctctctctgtac
1-6tRNA-Leu(taa)[87785,87866]
gccccaatggtgaaactggtatacacgtagcacttaaaatgctatgctt
aggcttcgaggttcgatccctgcttgggtac
1-7tRNA-Arg(acg)[87871,87944]
tttctcatagtttaactggaaaaacacaggttacggccttgagagtag
gggttcgagtccttgagaaaac
1-8tRNA-Ala(tgc)[88170,88243]
ggcccagtagctaaactggcttagcacctccttgaaggagaagtatgt
gggttcgagccccatctggccac
1-9tRNA-Lys(ttt)[88325,88397]
accctcgtagcttaatggcaaagctcctctctttaaaggcgaccgca
agatcggtactgtcgggggtac
1-10tRNA-Ile(gat)[88687,88761]
aggaatatagctcagttggttagagtacttcgctgataccgaagatgca
caagttcgaatctgttattctac
1-11tRNA-Gly(tcc)[88865,88939]
gcagcaatcgcatacggcctattgcacctgactccaatcaggatctcg
tgagttcgaatctcacttctgcac
1-12tRNA-Met(cat)[88944,89018]
agcgaggtagagcagctggttagctcgctaggctcataacctagaggtcg
ggagttcgagtcctcccttcgccac
1-13tRNA-Asp(gtc)[89097,89170]
agtctatcgggtccagtgagtgagcgtgccctgtcacggcagagatcac
gggttcgagtccttatagactgc
1-14tRNA-Thr(tgt)[89249,89323]
tcctacgtagctcaattggtggagcactggtttgtaaaccaaaggttg
tcggttcgagtcgacctaggatc
1-15tRNA-Val(tac)[89470,89544]
accagattagctcaggggttagagcaactctttacaaggagaaggtcg
atagttcgaatctatcattgttac
1-16tRNA-Arg(tct)[89555,89628]
gggggattagtttaactggaaaaactataggcttctatcctatcgagtag
gggttcgaatcccttatcccttc
1-17tRNA-Met(cat)[89638,89712]
ggcctttagctcagttggttagagcagctcactcataatgagaaggtct
caggttcgagtcctgactaggccac
1-19tRNA-Tyr(gta)[89926,90010]
gggacggttgctcggctggaagaggcgaggactgtaaatctgtaatcc
actaggaatggaggttcgagtcctcctcgccac

1-20tRNA-Ser(gct)[90280,90367]
agaaaggtgtcagagtggttattgagctaggttgctaacttagtggagt
gaaataccttccgtgggttcgaatcccatcctttcttc
1-21tRNA-Asn(gtt)[90397,90485]
tcttgagttgccgtagttggccgaacggtccagactgttaatctggtgag
atttatctccatcgtaggttcgaatcctacctaagagc
1-22tRNA-Trp(cca)[90629,90702]
acttgagtagctcagttggtagagcagtggtctccaaaaccaaagtcgt
aggttcgagtcctacctctcgtgc
1-23tRNA-Phe(gaa)[90724,90798]
ggggttgtagctgagttggtacaagcgtccgattgaagctcggaaagtacg
aagggtcgaagccttcttccccac
1-24tRNA-Ile(gat)[143233,143308]
aatcgggtagttcaattggtagaacatcacactgataatgtgaagttgt
gggttcgagtcctccatcccattacca

>KT962246.1 Cellulophaga phage phi4:1_18, complete genome

1-1tRNA-Pro(tgg)[87196,87272]
cgggtaatagaggagctcgtttatctcgtgcatttgggatgcagagca
cgcaggttcgaatcctgcttatccgac
1-2tRNA-Glu(ttc)[87352,87424]
gctgccatcgtctaacggctaggacctcaggtttcatcctgtaacgg
agttcgattctcgtggcagtac
1-3tRNA-Gln(ttg)[87495,87568]
tggaatatggtgtaattggtaacacgtctggttttggccagaagagtgg
gggttcgagaccctctattccaac
1-4tRNA-His(gtg)[87570,87644]
gtgttagaagctaaagtggcgaagcgtctggttggtccagaagatag
tgagttcgagtcctttaacaccc
1-5tRNA-Leu(tag)[87703,87778]
gcagaggtgggtaaaactggtaaacgcccccatttaggatcgggagttct
gagggttcgactccctctctgtac
1-6tRNA-Leu(taa)[87785,87866]
gccccaatggtgaaactggtatatacagtagcacttaaatgctatgctt
aggcttcaggttcgatccctgcttgggtac
1-7tRNA-Arg(acg)[87871,87944]
tttctcatagttaactggaaaaacacagagttacggcctttgagagtag
gggttcgagtcctttgagaaaac
1-8tRNA-Ala(tgc)[88170,88243]
ggcccagtagctaaactggcttagcacctccttgaaggagaagtatgt
gggttcgagccccatctggcccac
1-9tRNA-Lys(ttt)[88325,88397]
accctcgtagcttaattggcaaagctcctctcttttaagaggcgaccgca
agatcggtactgtcgggggtac
1-10tRNA-Ile(gat)[88687,88761]

aggaatatagctcagttggtagagtacttcgctgataccgaagatgtca
caagttcgaatcttggtattcctac
1-11tRNA-Gly(tcc)[88865,88939]
gcagcaatcgcatacgccctattgcacctgacttccaatcaggatctcg
tgagttcgaatctcacttgctgcac
1-12tRNA-Met(cat)[88944,89018]
agcgaggtagagcagctggtagctcgctaggctcataacctagaggtcg
ggagttcgaagtcccccttcgccac
1-13tRNA-Asp(gtc)[89097,89170]
agtctatcggtccagtgagtgagcgtgccctgtcacggcagagatcac
gggttcgagtcctgtagactgc
1-14tRNA-Thr(tgt)[89249,89323]
tccctacgtagctcaattggtagcactggtttgtaaaccaaaggtg
tcggttcgagtcggacctagggatc
1-15tRNA-Val(tac)[89470,89544]
accagattagctcaggggttagagcaactctttacaaggagaaggtcg
atagttcgaatctatcatttggtac
1-16tRNA-Arg(tct)[89555,89628]
ggggattagtttaactggaaaaactataggcttctatcctatcgagtag
gggttcgaatcccttatcccccttc
1-17tRNA-Met(cat)[89638,89712]
ggcctttagctcagttggtagagcagctcactcataatgagaaggtct
caggttcgagtcctgactaggccac
1-19tRNA-Tyr(gta)[89926,90010]
gggacggttgctcggtggaagaggcgcaggactgtaaattctgtaatcc
actaggaatggaggttcgagtcctcctcgtccac
1-20tRNA-Ser(gct)[90280,90367]
agaaaggtgtcagagtggttattgagctaggtgctaacttagtggagt
gaaataccttcgtgggttcgaatccatccttcttc
1-21tRNA-Asn(gtt)[90397,90485]
tcttgagttgccgtagttggccgaacggtccagactgtaatctggtgag
atttatcctcatcgtaggttcgaatcctacctaagagc
1-22tRNA-Trp(cca)[90629,90702]
acttgagtagctcagttggtagagcagtggtctccaaaaccaaaggtcgt
aggttcgagtcctacctctcgtgc
1-23tRNA-Phe(gaa)[90724,90798]
ggggtttagctgagttggtacaagcgtccgattgaagctcggaagtacg
aagggtcgaagccttcttcccccac
1-24tRNA-Ile(gat)[143233,143308]
aatcggttagttcaattggtagaacatcacactgataatgtgaagttgt
gggttcgagtcctccatcccattacca

>KU927496.1 Salmonella phage 101962B_sal5, complete genome

1-tRNA-Asn(gtt)[20194,20268]
gggtcagtcgtataaaggtcattacggaaggctgtaaccttctatcgt

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ggttcgagtcacgctgtccagcca
1-2tRNA-Thr(tgt)[20274,20349]
gctggttagctccaatggtagagcagtcgcctgtaagcgaatgggtag
cggttcaagtcggttaaccagcacca
>KU927491.1 Salmonella phage 146851_sal5, complete genome
1-1tRNA-Asn(gtt)[20960,21034]
gggtcagtcgtataaaggtcattacggaaggctgtaaccttcttatcgt
ggttcgagtcacgctgtccagcca
1-2tRNA-Thr(tgt)[21040,21115]
gctggttagctccaatggtagagcagtcgcctgtaagcgaatgggtag
cggttcaagtcggttaaccagcacca
>KU927492.1 Salmonella phage 146851_sal4, complete genome
1-1tRNA-Asn(gtt)[39490,39564]
gggtcagtcgtataaaggtcattacggaaggctgtaaccttcttatcgt
ggttcgagtcacgctgtccagcca
1-2tRNA-Thr(tgt)[39570,39645]
gctggttagctccaatggtagagcagtcgcctgtaagcgaatgggtag
cggttcaagtcggttaaccagcacca
>KU927498.1 Salmonella phage 64795_sal4, complete genome
1-1tRNA-Asn(gtt)[39480,39554]
gggtcagtcgtataaaggtcattacggaaggctgtaaccttcttatcgt
ggttcgagtcacgctgtccagcca
1-2tRNA-Thr(tgt)[39560,39635]
gctggttagctccaatggtagagcagtcgcctgtaagcgaatgggtag
cggttcaagtcggttaaccagcacca
>KU927495.1 Salmonella phage 103203_sal4, complete genome
1-1tRNA-Asn(gtt)[20457,20531]
gggtcagtcgtataaaggtcattacggaaggctgtaaccttcttatcgt
ggttcgagtcacgctgtccagcca
1-2tRNA-Thr(tgt)[20537,20612]
gctggttagctccaatggtagagcagtcgcctgtaagcgaatgggtag
cggttcaagtcggttaaccagcacca
>KX098390.2 Erwinia phage vB_EamP_Rexella, complete genome
1-1tRNA-Asn(gtt)[41219,41294]
gacgggttagctcagttggtagagcgattgactgttaatcaattgggtcat
cggttcaaatccggtactcgtcgcca
1-2tRNA-Glu(ttc)[41301,41377]
attcctgtagacaaattggtaaagtcaccaccctttcaagggtgtatttg
tgggttcaagtcctcaggaatgcca
1-3tRNA-Asp(gtc)[41384,41458]
agtgcctatagttcagcggtagaatacctccctgtcacggagatggtcacg
ggttcgaatccggttagcactgcca
1-4tRNA-Ile(gat)[41462,41537]
tgcttcatagctcagttgggtagagcaaccgcccataagcggtaggtcac

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tggttcaagtcagttgaagcaacca
1-5tRNA-Tyr(gta)[41796,41877]
gggggattagtcaagcggcgaagacggcagactgtaaactgttatccc
acacggtagttcgaatctacatccccacca
1-6tRNA-Ser(gct)[41883,41974]
ggaagattggctgagtggtctaaaagcgtccggtgctaaccggaaggcgg
tgtaacagcttcccactggttcgaatccagtatcttctcca
1-7tRNA-Lys(ttt)[41980,42056]
aggtcgtagctcagttggttagagcaccggacttttaaccggatgtca
ttggttcgaggccaatacgaacctacca

>KX098391.1 Erwinia phage vB_EamP_Gutmeister, complete genome

1-1tRNA-Asn(gtt)[36891,36966]
gacgggttagctcagttggttagcgcgattgactgttaataattggtcat
cggttcaaatccgtactcgtcgcca
1-2tRNA-Glu(ttc)[36973,37049]
attcccgtagacaaattggtacagtcaccacacttcactgtggagtttg
tgggttcaagtcacctcggaatgcca
1-3tRNA-Asp(gtc)[37056,37131]
agtcctatagttcagtcggtagaataacctccctgtcacggagaaggtcac
gggttcgagtcggttaggactgcca
1-4tRNA-Ile(gat)[37135,37210]
tgcttcagctcagtggttagagcaaccgcccataagcggtaggtcac
tggttcaagtcagttgaagcaacca
1-5tRNA-Tyr(gta)[37469,37550]
gggggattagtcaagcggcgaagacggcagactgtaaactgttatccc
acacggtagttcgaatctatcatccccacca
1-6tRNA-Pro(tgg)[37555,37631]
cggcatttagctcagtttggcagagcatcggcttgggagtcgagggtcg
aaggttcaaatccttcagtcggacca
1-7tRNA-Ser(gct)[37637,37728]
ggaagattggctgagtggtctaaaggcgtccggtgctaaccggaaggcgg
tgtaacagcttcccactggttcgaatccagtatcttctcca
1-8tRNA-Lys(ttt)[37734,37810]
aggtcgtagctcagttggttagagcaccggacttttaaccggatgtca
ttggttcgaggccaatacgaacctacca

*Polydnaviridae

>AJ632313.1, AJ632317.1, AJ632321.1, AJ632305.1, AJ632310.1 Cotesia congregata virus complete genome

2-1tRNA-Thr(cgt)c[8914,8986]
gtcttagatagcttaactggaagagctcttggtgcgtaaccaaaagatcc
aggttcgattcccggccggggct
6-1tRNA-Thr(tgt)c[9967,10041]
agaccgtagctcaaatggtagtagccgacatgtcttcggaaggttc
tgggttcgaatcccagtcgagcta

6–2tRNA–Thr(tgt)[23439,23513]
agaccgtagctcaaatggtagagtagccgacatgtcttcggaagggttc
tgggttcgtatcccagtcaggagcta
10–1tRNA–Thr(cgt)[5364,5436]
atctcgtagcttaactggtagagccttggcgcgtaaccaaagggtcc
gggttcgagtcgggtctggatt
11–1tRNA–Thr(tgt)[914,988]
agaccgtagctcaaatggtagagtagccgacatgtcttcggaagggttc
tgggttcgaatcccagtcaggagcta
28–1tRNA–Thr(tgt)[9868,9942]
agaccgtagctcaaatggtagagtagccgacatgtcttcggaagggttc
tgggttcgaatcccagtcaggagcta
28–2tRNA–Thr(tgt)[10188,10260]
gaccgtagctcaaatggtagagtagccgacatgtcttcggaagattct
gggttcgaatcccagtcaggagca
28–3tRNA–Thr(tgt)[14305,14379]
agaccgtagctcaaatggtagagtagccgacatgtcttcggaagggttc
tgggttcgaatcccagtcaggagcta

>DQ000240.1 Microplitis demolitor bracovirus segment O, complete sequence

15–1tRNA–Ser(cga)[1653,1724]
gccgtagctcaactggtagagcactcggcgcgataccgacatggtctg
ggttcgattcccagttcgggct
15–2tRNA–Ser(cga)[1875,1946]
gccgtagctcaactggtagagcactcggcgcgataccgacatggtctg
ggttcgattcccagttcgggct
15–3tRNA–Ser(cga)[8881,8952]
gccgtagctcaactggtagagcactcggcgcgataccgacatggtctg
ggttcgattcccagttcgggct
15–4tRNA–Ser(cga)[9104,9175]
gccgtagctcaactggtagagcactcggcgcgataccgacatggtctg
ggttcgattcccagttcgggct
15–5tRNA–Ser(cga)[9326,9397]
gccgtagctcaactggtagagcactcggcgcgataccgacatggtctg
ggttcgattcccagttcgggct
15–6tRNA–Ser(cga)[24254,24325]
gccgtagctcaactggtagagcactcggcgcgataccgacatggtctg
ggttcgattcccagttcgggct
15–7tRNA–Ser(cga)[24477,24548]
gccgtagctcaactggtagagcactcggcgcgataccgacatggtctg
ggttcgattcccagttcgggct

*Polyomaviridae

>KP033140.2 Adelie penguin polyomavirus isolate AdPyV_Crozier_2012, complete genome

1–1tRNA–Phe(gaa)[2769,2841]
gctgaagtagctcagttgggagagcattagactgaagatctaaaggtccc

tggttcaaccccggttcagca

*Poxviridae

>KM502564.1 Parapoxvirus red deer/HL953 strain HL953, complete genome

1-tRNA-Pyl(cta)c[122496,122582]

cgctgctgtcggcgtatgcccggtgcagagctcctctaggggctctcg

aaatcgctgtcgtgttcgagtcgctgtggtggtggc

>MF503315.1 UNVERIFIED: Squirrelpox virus Berlin_2015, complete genome

1-tRNA-Asp(gtc)[25493,25578]

attcaacatagatataataactcgtttgtccaacacataaagagttcgt

tgatttgatttctcgttcgatacgaataattggata

*Retroviridae

>AF033812.1 Abelson murine leukemia virus, complete genome

1-tRNA-Gly(ccc)c[1169,1260]

cctgcgaggtagtaggagtcggccactgggggctcccgtctccacgcagg

cgagatgccattggggaggggtccggtgcctctccgcaggg

>AF033813.1 Moloney murine sarcoma virus, complete genome

1-tRNA-Gly(ccc)c[1105,1196]

cctgcgaggtagtaggagtcggccacaggggctcccgtctccacgcagg

cgagatgccattggggaggggtccggtgcctctccgcaggg

>AF033811.1 Moloney murine leukemia virus, complete genome

1-tRNA-Gly(ccc)c[905,996]

cctgcgaggtagtaggagtcggccacaggggctcccgtctccacgtagg

cgagatgccattggggaggggtccggtgcctctccgcaggg

*Siphoviridae

>AF011378.1 Bacteriophage sk1 complete genome

1-tRNA-Trp(cca)[27504,27576]

tgcgagcatagataatggtaatgtacagattccaaacctgtaaacgtg

ggttcgattcctactgttcgtgt

>AF304433.1 Bacteriophage TP901-1, complete sequence

1-tRNA-Lys(ttt)[13134,13208]

gtggctgcatggtcaaggggtaagacactgcacttttaatgcagaggcg

tgattcgaatctcactcagtcaca

1-2tRNA-Ala(cgc)[13288,13375]

tagcaagtatatggctaaggttcgttagtaagtcgcaccttacgactta

gtatggaattgttagggttcgactccctgacttgctat

>AF009630.1 Bacteriophage bIL170, complete genome

1-tRNA-Pro(tgg)[31308,31379]

caggatatggtgtcaatggttagcatagctgtttgggaacatgtggtgtt

ggttcgagtcagctatcctga

>AF323672.1 Bacteriophage bIL311, complete genome

1-tRNA-Leu(taa)[13135,13220]

tgctcgaatggcggaattggcagacgtgcggacttaaaatccgttggtt

attaaacctgagggttcaagtcctctttgagcat

>AY129331.1 Mycobacteriophage CJW1, complete genome

1-tRNA-Arg(cct)[63846,63929]
atggcccgtagctcagtcaggtagagcagccttggcccttgcgggcttgg
ttcgtccccggttcaaatccgggcgggccttgcc

1-2tRNA-Gly(tcc)[63932,64004]
gcgcccgtggcgaattggaaagactcctggcttccaccaggttatgca
ggttcgagtcctgtcgggcgctc

>AY129333.1 Mycobacterium phage Che9c, complete sequence
1-tRNA-Tyr(gta)[32232,32310]
aacacgttagaacgtattccacggactgtaaatccgtcggcttacgcct
acgcaggttcgaatcctgcacctgccacc

>AY129332.1 Mycobacterium virus Bxz2, complete genome
1-tRNA-Asn(gtt)[3932,4007]
tgatctgtagctcaatcggcagagcaccggctgtaaccgggacgttgg
aggttcgagtcctccagatcagcca
1-2tRNA-Trp(cca)[4048,4122]
aggcacgtagctcaattggtcagagcagcggctcctcaagccgcccgtg
caggttcgagtcctgccgtgtctgc
1-3tRNA-Leu(cag)[4157,4231]
ggctcgtaggcaaacaggcaaagccgctgtctcaggaacaggtgcgtg
agggttcgactccctcccagctac

>X98106.1 Lactobacillus bacteriophage phig1e complete genomic DNA
1-tRNA-Gly(tcc)[2594,2664]
gcgagtgtagttagtggtaaaacgatagccttccaagctgtagtcggg
gtccgattcccgtcactcact
1-2tRNA-Ile(tat)c[31567,31641]
tattcccgtagctcagtggcagagcgtccaattataattgggaggtcgc
tggttcgatgccagccgggaataac
1-3tRNA-Tyr(gta)c[31887,31969]
ggcggcgctcagagatggagagctgtgtcggctgtaaaaccgatccc
ttgggtgagtaggtttgattcctaccgcccca

>AF022214.1 Mycobacterium virus D29, complete genome
1-tRNA-Asn(gtt)[4218,4292]
tgacgtgtagctcaatggcagagcatccggctgtaaccggacggtgaa
ggttcgagtccttctcgtcagcca
1-2tRNA-Trp(cca)[4333,4408]
gtacacgtagctcaattggtagagcagcggctcctcaagccgcccgttcc
aggttcgactcctggcgtgtatgcca
1-3tRNA-Gln(ctg)[4416,4488]
tccccgttcgtctaatacggtaaagacgctggctctggaccaggttaattga
ggttcgagtccttggcggggagc
1-4tRNA-Glu(ctc)[4523,4596]
ggtcccttggagtagcggataactcacctggccctcaccagaagatcgc
gggttcgaatcccgcaggactac
1-5tRNA-Tyr(gta)[4600,4680]

cgcgagatacccaagcggcaacgggatctgactgtaaatcagacgcttcg
 gcttcgcaggttcgagtcctgctctcgcgac
 >AY129338.1 Mycobacteriophage Omega, complete sequence
 1-tRNA-Gly(tcc)[95561,95633]
 gcgcttgggtcgaattggaagactcctggctccaccaggttatgca
 gggttcgagtcctgtcgcgctc
 1-2tRNA-Tyr(gta)[96528,96601]
 tggcccgtagctcaattggcagagcagccggcggttaattcggcgcgtct
 cgggttcgagtcgggcgggctacc
 >AY576796.1 Actinoplanes phage phiAsp2, complete genome
 1-tRNA-Asn(gtt)[27417,27506]
 gacctcgtagtcagttgggtgtatgaccggcggttgttggcccca
 tcgcccgccgatgatctggatcttccggacggcggcgc
 1-2tRNA-Ala(ggc)[34296,34375]
 gacgccaccagtttgggaggcgtgccggttggcgccggcgctggctc
 cggcctcggggtcgaacccggcggcctcg
 1-3tRNA-Trp(cca)[36786,36858]
 gggcgctccgggtgaggacggcctgggcgcgctccaggcgccaggttg
 ccgatcaggcgacgaacgccc
 >AJ550940.2 Bacteriophage phi-BT1 complete genome
 1-tRNA-Thr(cgt)[31992,32066]
 gctccgtagctcagcgggaagagcgccccgacgttcgagggggaagccg
 ccgggtcgaatccggcccggagcac
 1-2tRNA-Lys(ctt)[40986,41059]
 gttccgtagctcaatgggcagagcaccggctcttaaccgggtgtgtg
 tgggttcgagtcagccgggaacac
 >AF165214.2 Bacteriophage D3, complete genome
 1-tRNA-Met(cat)[53398,53473]
 cgcagggtggagaagtggatcatctcgccggcccataacccggagatcgc
 tgggtcgaatccagcccttgctacca
 1-2tRNA-Gly(tcc)[53980,54055]
 gcggcttagctcaactggcagagcgtgtcctccaagtcagatgttgc
 aggttcaagtcccgagcgcgtcca
 1-3tRNA-Asn(gtt)[54068,54142]
 tgacgttagctcagaggtatagcggctggttaccgactggtcgat
 ggttcgatcccatccggtcagcca
 1-4tRNA-Thr(tgt)[54147,54222]
 gccggtatggcgcaacaggagcgtgctgattgtaatcagaggggtgc
 ggggtcgactcctgctccggcacca
 >Z18946.1 Mycobacterium phage L5 complete genome
 1-tRNA-Asn(gtt)[4200,4272]
 tgacgttagctcaatggcagagcggcgactgttaatcgggtggtgaa
 ggttcgagtccttccatgtcagc
 1-2tRNA-Trp(cca)[4350,4423]

gtacacgtagctcaattggtagagcagcggtctccaaagccgccggtcc
agggtcgactcctggcgtgatgc
1-3tRNA-Gln(ctg)[4479,4553]
tccccgttcgtctaatacggttaagacacccggctctggaccgggcaattga
ggttcgagtccttggcggggagcca

>AJ251789.2 Lactobacillus casei bacteriophage A2 complete genome

1-1tRNA-Leu(taa)[38396,38466]
gcaaccgtagctcagatgggagagcagtggcataagcctatcggtcgtgg
gttcgagccccaccggttcg

>AJ006589.3 Bacteriophage phi-C31 complete genome

1-1tRNA-Gly(ccc)[31424,31511]
gctccgtagctcagcgggaagagcggccgaacccgggacgcgaaagcgtg
cacgcggaagccgccggttcgaatccggcccgagcac
1-2tRNA-Thr(cgt)[40702,40777]
gcctccctagctcagttcggttagagcgctgttcgtaatcagggggtc
ggcgggttcgaatccgtcggggggctc

>AY543070.1 Bacteriophage T5, complete genome

1-1tRNA-Met(cat)c[28038,28113]
agttagtggcagagtgggtatgcacctcttcatacggagcgactacag
tggttcaaatccactactaactacca
1-2tRNA-Ile(gat)c[28210,28286]
acttcggtagcttagcgatctaaagcactcggctgataaccgagagatcg
ggggtttaaatccctcccggagtacca
1-3tRNA-Thr(tgt)c[28667,28741]
gctcctaaagcattgttggtgatgcagttgccttgaagcatctgaaccg
ggttcgattcctagtgggagcacca
1-4tRNA-Gln(ttg)c[29260,29337]
tggggattagcttagcttggcctaaagcttcggccttgaagtcgagatc
attggttcaaatccaatatcccctgccca
1-5tRNA-Gln(ctg)c[29344,29419]
agaaggttagccaagtcggttaaggctgggatctctgaaaccactgatcg
tggttcgaaccactaccttctgccca
1-6tRNA-His(gtg)c[30206,30282]
tggtctatatcataattggttaatgatcctgattgtgaatcaggcctatg
tggattcgaattccactagccacccca
1-7tRNA-Ser(tga)c[30845,30934]
ggaaggtagggcgtagtgttacgcaactagctctgaaaactagcccgtg
tagtgatacgggtgatggttcgactccattaccttctcca
1-8tRNA-Ser(gga)c[30942,31035]
ggaaaagcaaatagactggcgactaaacccgattggaaatcggttgagta
atagcaatattgccttatgggtcaactcccacatctttccgccca
1-9tRNA-Leu(tag)c[31624,31708]
ggggctatgctggaactggtagacaatacggccttagattccgtagctta
aatgcgtgggagttcgagttccctagccccacca

1-10tRNA-Ala(tgc)c[31714,31788]
 gggcgaatagtgtagcgaggacacaccagactgcaatctggtagggag
 ggttcgagtcctctttgtccacca
 1-11tRNA-Val(tac)c[32081,32154]
 gctcggtagtataatgggagaaccccgctttacacggcggttgata
 gttcgattctatcaccgaglacca
 1-12tRNA-Lys(ttt)c[32162,32239]
 ggggtgctagctcaactggttagagcactggtctttaaacataggtt
 acaggttcgagtcctgtcaaccacca
 1-13tRNA-Met(cat)c[32428,32505]
 tgcgggtagatctctgtagagatcgctagctcataagctagaagag
 gtaggttcgattcctgcaccgctcca
 1-14tRNA-Pro(tgg)c[32512,32588]
 ctccgattagctcaattggctagagtacaccgttggggcggtggggtg
 aaggttcgagtccttcattggagacca
 1-15tRNA-Asp(gtc)c[33578,33654]
 gcgaccggggctggcttgtaatggtactcccctgtcacgggagagaatg
 tgggtcaaatcccatcggtcgcgcca
 1-16tRNA-Asn(gtt)c[33952,34029]
 ggttccttagctctaattggttagagcggcatctgttaagttgagggtt
 gctggttcgaatccagcaggaaccgcca
 1-17tRNA-Cys(gca)c[34546,34621]
 cgaccgttggctgaatggcttaggcgaaggattgcaaatccttttatgt
 gattcaaatctcatcggtcgtcca
 1-18tRNA-Phe(gaa)c[35096,35170]
 gcaccttagctgagatggattagcgttcctgaagagcttgagaggtt
 cgttcaattcgaacagggtgcacca
 1-19tRNA-Glu(ttc)c[35257,35333]
 gtctgttagacaaactggtaaagtcactacccttcaaggtagggttg
 cgggttcgatccccacacaggacgcca
 1-20tRNA-Tyr(gta)c[35340,35427]
 gggggagtattctgtaagtggtagcagagctgactgtaattagttgtca
 ttgcgactcgggtggttcgactccatcctccctacca
 1-21tRNA-Ser(gct)c[37170,37258]
 ggaagaatagcataacggtattgcagcagattgctaactgtcggtttga
 aatatagccttgggttcgattcccacttcttcgcca
 1-22tRNA-Arg(tct)c[40773,40847]
 cggggtgtagtctaaggagaggcaggagtcttctaattcctttatgca
 ggttcgaatcctgtcacctcgcca
 1-23tRNA-Ser(act)c[41431,41504]
 tgccgacctagtataaacggtattatcaagccgtaactggtggaagatgt
 aggttcgaatcctacggtcggttaa

>AY236756.1 *Lactobacillus plantarum* bacteriophage phiJL-1, complete genome

1-1tRNA-Ile(tat)[12,85]

tactcgtatagctcagtggttagagcactcaactataattgaggggtcga
 ttgttcaagccaatctacgagtat

>AM156909.1 Bacteriophage RTP, complete genome
 1-tRNA-Arg(tct)[4893,4969]
 gccccgctagctcaattggatagagcaacgaccttctaagtcgtaggtta
 ctggttcgaatccagtcgagcgcca

>DQ121662.1 Bacteriophage JK06, complete genome
 1-tRNA-Arg(cct)c[22138,22213]
 gtctcgtggcgtaacaggataacgcagagacctcctaagtcagttac
 tggttcagtcagtcggaacacca

>AY131267.2 Bacteriophage Lc-Nu, complete genome
 1-tRNA-Asp(atc)[32542,32614]
 gtgagtagtgaagtgaaaaagctcccgctcatcaggcgggtaatcgct
 gggttcgattccatctctcaca

>EF116926.2 Streptococcus phage SMP, complete genome
 1-tRNA-Ser(gct)[24448,24535]
 ggagagtactcaaggctgaagaggcgaggttgctaccttgctaggcc
 gaatttcggcgcatgggttcgaatcccatactctcct

>DQ398052.2 Mycobacteriophage Wildcat, complete genome
 1-tRNA-Trp(cca)[58812,58883]
 gcgctgatagttagtggtaacacggcaagctccaaccttgctatctggg
 gttcaagtcctcatcagcgtgc
 1-3tRNA-Pro(tgg)[59496,59567]
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 gttcaattctgcgcaccctgac
 1-4tRNA-Phe(gaa)[59891,59965]
 cggtcgttagtgaagatggagatcacgcgggcctgaaaaacccgagacgc
 aggttcgattcctgcacgaccggcc
 1-5tRNA-Met(cat)[59969,60045]
 tgcggtgtagtggagttcggtaccatgcgaggtcataacctctgcgaca
 cgggttcaatcccgtcgccgcgacca
 1-6tRNA-Tyr(gta)[60157,60239]
 gcgtcagacgcacattgggtagtcagcggctgtaaaaccgtcgcttc
 gggcattgggggttcaagtcctcctgacgcac
 1-7tRNA-Ala(tgc)[60312,60383]
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 gttcaattccccatacctccac
 1-8tRNA-Val(tac)[60438,60509]
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 gttcaattcttcagcgggtac
 1-9tRNA-Leu(tag)[60579,60653]
 ggctcgttatgcaaaccggcaaagcagcctgccttagaagcaggtgttc
 agggttcgactccctggcgagctac
 1-10tRNA-Leu(caa)[60711,60784]

ggtcgtgtaggcaaagcgcaaagccccaagctcaaacctgggtgtt
gggttcaactcccaccgcgactac
1-11tRNA-Gly(tcc)[60880,60953]
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gagttcgattctcgtcacccctcac
1-12tRNA-Gly(gcc)[61029,61100]
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gttcaattcccgtcgtccgcac
1-13tRNA-Gln(ctg)[61288,61360]
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ggtttgaatccttggggcagc
1-14tRNA-Asp(gtc)[61578,61650]
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ggttcaattccctctggcggggc
1-15tRNA-Thr(agt)[61657,61731]
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agggttcgactccctgcttagcctc
1-16tRNA-Lys(ctt)[61803,61875]
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agttcgacttccccgcctcac
1-17tRNA-Cys(gca)[61882,61957]
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1-18tRNA-Ile(gat)[61960,62032]
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agttcaactctctcgggccaac
1-19tRNA-Arg(acg)[62139,62212]
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gggttcgaatccctccacgggtac
1-20tRNA-Ser(gct)[62237,62319]
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gcaaggatcacgttcaactcgtgctctctccgc
1-21tRNA-His(gtg)[62321,62394]
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gtcagaaccgtccagacacccca
1-22tRNA-Glu(ttc)[63026,63098]
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ggttcaactccctgcggaactgc
1-23tRNA-Glu(ctc)[63103,63174]
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gttcaattcccctgtgggctac
1-24tRNA-Asn(gtt)[63180,63251]
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gttcgatcccagctaccggagc

>DQ054536.1 Lactococcus phage P008, complete genome
1-tRNA-Asp(gtc)[27791,27862]
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ggttcgattccagttgtcctag
1-2tRNA-Pro(tgg)[27919,27990]
caggatatagtgtaatggtagcatgcgtgtttgggaacatgtagtgtt
ggttcgagtcagctatcctga

>DQ227763.1 Lactococcus phage 712, complete genome
1-tRNA-Trp(cca)[29387,29459]
tacgagcatagtatagtggaatgctacagattccaaacctgtaaacgtg
ggttcgattcctactgttcgtgt

>DQ398041.1 Mycobacteriophage 244, complete genome
1-tRNA-Arg(cct)[61979,62062]
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ttcgtccccggttcaaatccggcgggccttgcc
1-2tRNA-Gly(tcc)[62065,62137]
gcgcccgtggtcgaattggaaagactcctggctccaccaggttatgca
ggttcgagtcctgtcgggcgctc

>DQ398043.1 Mycobacterium virus Che12, complete genome
1-tRNA-Asn(gtt)[4024,4098]
tgacgtgtagctcaacggcagagcaccggctgtaaccggacggttgaa
ggttcgaatccttcacgtcagcca
1-2tRNA-Gln(ctg)[4135,4207]
tctccttctgtaaatcggaagacaccggctctggaccgggcaattga
ggttcgagtccttgaggagagc
1-3tRNA-Trp(cca)[4242,4315]
gggtcagtagctcaatcggtagagcagcggctctcaaagccgcgcttgg
aggttcgagtcctcctggccgc

>DQ227764.1 Lactococcus lactis phage jj50, complete genome
1-tRNA-Trp(cca)[26497,26569]
tcgagcatagtatagtggaatgctacagattccaaacctgtaaacgtg
ggttcgattcctactgttcgtgt

>AM419438.1 Archaeal BJ1 virus complete genome
1-tRNA-Phe(gaa)[19972,20048]
tggatcagatagctcagtcaggagagcaccggcctgaagcgctggcgtgc
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>CP000917.1 Enterobacteria phage EPS7, complete genome
1-tRNA-Met(cat)c[29711,29786]
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tggttcaaatccactactaactacca
1-2tRNA-Ile(gat)c[29884,29960]
gcttcggtagcttagcgatctaagcactcggctgataaccgagagatcg
ggggtttaaaccctcccgagtacca
1-3tRNA-Thr(tgt)c[30533,30607]

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1-4tRNA-Gly(tcc)c[31012,31086]
gcgtgattagttcagtggttagaataactggctccaaccagtagacacg
agttcgactctcgatcccccacca
1-5tRNA-Gln(ttg)c[31093,31168]
tggagagtagtgaacggtagcacaacggcctttgactccgtaatggt
aggttcgattcctccttctccagcca
1-6tRNA-Gln(ctg)c[31175,31250]
tgggatgtagatcaattggcagatcgtcggcctctgactccgaaggttcc
acgttcgatccgtggcatcccagcca
1-7tRNA-Arg(acg)c[31484,31558]
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ggttcgattccctgaggatgcacca
1-8tRNA-His(gtg)c[31565,31641]
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tgattcgaattccactagccacccca
1-9tRNA-Ser(tga)c[32183,32272]
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tagcgatatggtgatggttcgactccattaccttctcca
1-10tRNA-Leu(tag)c[32545,32625]
ggggatgtggcgaattggcagacgcgctagatttagattctagtcttcg
ggtgtgggtcgaagtcctccatccctacca
1-11tRNA-Ala(tgc)c[32871,32946]
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cagttcaattctgagtactccacca
1-12tRNA-Ala(tgc)c[32953,33031]
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gaacggttcgattccgttatttccacca
1-13tRNA-Val(tac)c[33949,34022]
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gttcgattctatcaccgagtacca
1-14tRNA-Lys(ttt)c[34027,34104]
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ctgggttcgaatcccaggaatccacca
1-15tRNA-Met(cat)c[34745,34822]
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gtaggttcgattcctgcacccgcttcca
1-16tRNA-Pro(tgg)c[34829,34907]
ctccgtgtagctcagtttggccagagcgtttcgtttggggcgatagggtc
ggggggttcaaatcctcccacggagacca
1-17tRNA-Gly(gcc)c[35213,35287]
gcgttcgtagttaaagggtataatttttggttgccaaccagaagttgag
ggttcgattccctccgaccgacca

1-18tRNA-Lys(ctt)c[35501,35576]
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aggttcaagtcctagtggtgtacca
1-19tRNA-Asp(gtc)c[35653,35729]
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tgggttcgaatcccatcggtcgcgcca
1-20tRNA-Asn(gtt)c[36026,36108]
gggtcgttagccaagcggttggcggaggactgtaatccatgtcgaaag
acaacgtagggtcgaatcctacacggcccgcca
1-21tRNA-Cys(gca)c[36116,36191]
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gagttcgaatctcatcggtcgtcca
1-22tRNA-Phe(gaa)c[36931,37005]
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cgatcgttacgtacaggttcacca
1-23tRNA-Trp(cca)c[37012,37088]
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taggttcgagtcctagtaggtttgcca
1-24tRNA-Glu(ttc)c[37097,37173]
gtcctgtagacaaactggtaaagtcactacccttcaaggtaggatttg
cgggttcgatccccgcacaggacgcca
1-25tRNA-Tyr(gta)c[37181,37271]
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cggaagggtctcgggtggttcgactccatcatccaacacca
1-26tRNA-Leu(taa)c[38186,38262]
gggggtgtaatcgaattggcataggtactggactaaaattcaggttttg
tgggttcgaatcccaccaccctacca
1-27tRNA-Met(cat)c[38812,38889]
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gtagggtcgaatcctccgggagccacca
1-28tRNA-Ser(gct)c[38895,38988]
ggaagattaaccctaaagtaaggagctgttgctaaacagccagtagc
tgtggagacacggtgtgccagttcgaatctggcatcttctcca
1-29tRNA-Arg(tct)c[42634,42708]
cgggggtgtagtctaaggataggcaggagtcttctaaattcctttatgca
ggttcgaatcctgtcacctcgcca

>EF579802.1 Microbacterium phage Min1, complete genome

1-1tRNA-Arg(tct)c[42,117]
gcctccgtagctcagggatagagcagcggccttctaattcgcggtgcga
tgggttcgaatccatccggggcacca

>DQ499600.1 Corynebacterium phage P1201, complete genome

1-1tRNA-Arg(tct)c[49943,50016]
cccctagtagctcaaaggacagagcaatggatttctaccccataggttc
aggttcgagtcctgcctaggggac

1-2tRNA-Gly(tcc)c[50276,50349]
gcctcattgttccaatggtaagatgtctgactccaatcagacgatcgc
ggttcgatttccgcatgaggctcc

1-3tRNA-Arg(cct)c[50536,50609]
gccctggtagctcaatggatagagcagaggagtcctaactcctcaggttg
aggttcgaatcctctctagggcgc

1-4tRNA-Tyr(gta)c[50880,50962]
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cggttgagtaggttcaaatcctatgtcggggac

1-5tRNA-Trp(cca)c[51019,51092]
tcggatgtagttcaattggtagagcgtggtctccaaaccagaagttgc
aggttcaagtcctgtcatccgggc

>EU744250.1 Mycobacterium virus Pukovnik, complete genome
1-1tRNA-Gln(ctg)[5774,5848]
tcctcgtagcacaaactggtagatgcgctcggtctggaccgagaggttt
gaggttcgaatccttggcgaggagc

>EU816588.1 Mycobacterium phage Porky, complete genome
1-1tRNA-Arg(cct)[61660,61743]
atggcccgtagctcagtcaggtagagcagccttggccccttgcgggcttgg
ttcgtccccggttcaaatccgggcgggccttgcc

1-2tRNA-Gly(tcc)[61746,61818]
gcgcccgtggtcgaattggaaagactcctggcttccaccaggttatgca
ggttcgagtcctgtcgggcgctc

>EU246945.1 Lactobacillus phage Lrm1, complete sequence
1-1tRNA-Met(cat)[36665,36737]
gtgagagtagctaagtggaaaagcgtcccgatcagcgcgacaatgcgt
gggttcgattcccattctctcaca

>EU816591.1 Mycobacterium phage Kostya, complete genome
1-1tRNA-Arg(cct)[62214,62297]
atggcccgtagctcagtcaggtagagcagccttggccccttgcgggcttgg
ttcgtccccggttcaaatccgggcgggccttgcc

1-2tRNA-Gly(tcc)[62300,62372]
gcgcccgtggtcgaattggaaagactcctggcttccaccaggttatgca
ggttcgagtcctgtcgggcgctc

>FJ188381.1 Stx2-converting phage 1717, complete genome
1-1tRNA-Met(cat)[24379,24453]
cggccctttagctcagtggtgagagcagcgactcataatcgccaggtcg
ctggttcaaatccagcaaggccacc

1-2tRNA-Arg(tcg)[24456,24532]
ccgccattagctcatcggtatagagcgtcagccttgaagctggttgcgc
gaggttcgagtcggggtggtgtcca

1-3tRNA-Arg(tct)[24546,24622]
gcgttgtagctcagcaggacagagcaattgccttctaagcaatcggtca
ctggttcgaatccagtacaacgcgcca

>FJ429185.1 Lactococcus phage P087, complete genome

1-1tRNA-Pro(tgg)c[59413,59486]
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aaggttcaaatcctttatcttga
1-2tRNA-Asn(gtt)c[59542,59614]
tgacctatagctcagttggttagagcgtcgactgttaatgcgaatgctgt
aggttcaagtcctactgggtcag
1-3tRNA-Asp(gtc)c[59656,59727]
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agttcgattctcgtatagaccg
1-4tRNA-Thr(tgt)c[59730,59802]
gccgatttagctcagttggttagagcgtctgattgttaatcagaaggtcac
aggttcaagtcctgtagtcggca
1-5tRNA-Cys(gca)c[59903,59975]
ctccctgtgaccgagtggttaggtgcagctctgcaaaagctgatacgtc
ggttcgaatccgactaggagtc

>GQ478086.1 Enterococcus phage phiFL3A, complete genome

1-1tRNA-Arg(tcg)[15705,15779]
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cgggttcgaatcctgtcacgccaat
1-2tRNA-Met(cat)[38661,38734]
ggaccattagctcagttggttagagccaaccgctcataacggttaggtca
taggttcgagtcctgtatggtcca

>GQ478084.1 Enterococcus phage phiFL2A, complete genome

1-1tRNA-Arg(acg)[14629,14703]
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cgggttcgaatcctgtcacgccaat
1-2tRNA-Met(cat)[35352,35425]
ggaccattagctcagttggttagagccaaccgctcataacggttaggtca
taggttcgagtcctgtatggtcca

>GQ478081.1 Enterococcus phage phiFL1A, complete genome

1-1tRNA-Asn(gtt)[14594,14666]
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gagttcgagtcctgtattccag
1-2tRNA-Met(cat)[37849,37922]
ggaccattagctcagttggttagagccaaccgctcataacggttaggtca
taggttcgagtcctgtatggtcca

>GQ452243.1 Enterococcus phage phiEf11, complete genome

1-1tRNA-Asn(gtt)[39646,39718]
tggaatatagctcagttggttagagcgtacgactgttaatcgtagggtcat
gagttcgagtcctgtattccag

>GQ478088.1 Enterococcus phage phiFL4A, complete genome

1-1tRNA-Met(cat)[37498,37571]
ggaccattagctcagttggttagagcaaaccgctcataaccgttcggtca

caggttcgagccctgtatggcca

>HM152764.1 Mycobacterium phage Angelica, complete genome
1-tRNA-Trp(cca)[994,1067]
gggtgtgtagctcaattggcagagcagcggctctccaaagccgcccgttgc
acgttcgagtcgtgccgcgcccgc

>HM152767.1 Mycobacterium phage CrimD, complete genome
1-tRNA-Trp(cca)[978,1051]
gggtgcgtagctcaatcggtagagcagcggctctccaaagccgcccgttgc
acgttcgagtcgtgccgcgcccgc

>HM152763.1 Mycobacterium virus Bron, complete genome
1-tRNA-Leu(caa)[60863,60937]
ggctctgtaggcaaattggcaaagccgcgtcactcaaatgacgtgtctg
tgggttcgagtcaccacgggactac
1-2tRNA-Thr(cgt)[60938,61012]
gctgccttagctcagatggctagagcgcgctctcgtaaagcgaggtcg
cgggttcgaggcccgaggcagctc
1-3tRNA-Lys(ctt)[61299,61372]
gcctcgtagctcagttggtagagtcgccgactcttaacggtaggtcgc
aggttcaaatcctgcacgggggtac
1-4tRNA-Tyr(gta)[61383,61466]
gcgtcggaggtagctgttgggttggtacacctgcctgtaaagcaggcgt
tcggcttcgggggttcgattccctcccggcgtag
1-5tRNA-Trp(cca)[61476,61549]
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ccgttcgagtcggggccgggttgc
1-6tRNA-Leu(tag)[61550,61624]
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cgagttcgactctcgccagttctac
1-7tRNA-His(gtg)[61625,61694]
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ttcgattccgggcttaagcc
1-8tRNA-Cys(gca)[62874,62947]
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gttcgattccggaggcggctcca
1-9tRNA-Lys(ttt)c[63228,63302]
gccctatagctcagttggtagagctatcgcttttaagcgacaggtcgc
aggttcgagtcctgctgggggcacc

>HM029250.1 Lactococcus phage 949, complete genome
1-tRNA-Met(cat)[42403,42475]
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1-2tRNA-Arg(tct)[43986,44058]
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1-3tRNA-Asp(gtc)[44843,44915]
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1-4tRNA-Pro(tgg)[45463,45534]
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ggttcgagtcagctatcctga

1-5tRNA-Pyl(cta)[46865,46937]
tgcgaacatagatatgtggaatgctacagactctaagatgtaaactga
ggttcgattcctactgttcgtat

1-6tRNA-Trp(cca)[46993,47064]
atccgttttagttagtggttaacacatcagattccaacctgataacgtg
ggttcgattcctacaatggatg

1-7tRNA-Met(cat)[47277,47350]
tacagggtgggtggcaaggcgtcacgctagttcataagctagaatagaa
cggttcgattccgttacctgaat

>HM144386.1 Brochothrix phage BL3, complete genome

1-1tRNA-Asn(gtt)[40805,40876]
tgagatatggctcaatggtagagcaccgcactgttaatgcgtaggttata
ggttcgagtcctgttatctcag

>HQ406778.1 Enterobacteria phage SPC35, complete genome

1-1tRNA-Met(cat)c[27768,27843]
agttagttggcagagtggtatgcacctcctcatacggagcgactacag
tggttcaaatccactactaactacca

1-2tRNA-Ile(gat)c[27940,28016]
gcttcgtagcttagcgatctaaagcactcggctgataaccgagagatcg
ggggtttaaaccctcccgagtacca

1-3tRNA-Thr(tgt)c[28592,28666]
gctcctaaagcattgttggcgaatgcagttgccttgaagcatctgaaccg
ggttcgactcctggtgggagcacca

1-4tRNA-Gly(tcc)c[29101,29175]
gcgtgattagttcagtggtagaataactggctccaaccagtagacacg
agttcgactctcgtatcccgaccca

1-5tRNA-Gln(ttg)c[29182,29256]
tggagagtagtgaacggttagcactggagatttgaatctcttagttag
ggttcgaatccctactttcctgcca

1-6tRNA-Gln(ctg)c[29263,29338]
tgggatgtagatcaattggcagatcgtcggcctctgactccgaaggttcc
acgttcaatccgtggcatcccagcca

1-7tRNA-His(gtg)c[29571,29647]
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tggattcgaattccactagccacccca

1-8tRNA-Ser(tga)c[30215,30304]
agaagataggacgtagtggtacgtaactggtcttgaaccagcccgcgg
tagcgatacggtaggttcgactccattatcttctgcca

1-9tRNA-Leu(tag)c[30514,30590]
gcgtgattgatggaatgggcatacataccgtccttagaagtcgggttttg
agggttcgaatccctgtcacgcacca

1-10tRNA-Ala(tgc)c[30596,30674]
ggggaatgggtctgcatggagtggacacctcgttcaccgaggacatca
gaacgggttcgattccgttattctccacca

1-11tRNA-Lys(ttt)c[31054,31132]
agatcgctagctcaataggtttagtagcatccgactttaatcggaaggt
tctgggttcgagtcgccagcgatctacca

1-12tRNA-Met(cat)c[31322,31399]
tgcgggttagatctctggtagagatcgctagtctcataagctagaagag
gtaggttcgattcctgcacccgcttcca

1-13tRNA-Pro(tgg)c[31406,31481]
cagtcgctagcgcagttggtagcgtgggagccttgatgcttcgggtcgc
agggttcgagtcctgccgcactgacca

1-14tRNA-Lys(ctt)c[32516,32591]
acaccatagctcaatggtagagctaccgcctcttaagcggagggttct
agggtcaagtcctagtggtgtacca

1-15tRNA-Asp(gtc)c[32769,32845]
gcgaccggggctggcttggtaatggtactcccctgtcacggagggaatg
tgggttcaaatcccatcggtcgcgcca

1-16tRNA-Asn(gtt)c[33143,33225]
gggtcgtagccaagcgggttggcgggtgactgtaatccatgtcgaaag
acaacgtagggtcgaatcctacacggcccgcca

1-17tRNA-Cys(gca)c[33235,33310]
cgaccgttggtgaatggcttaggcgaaggattgcaaatccttttatgt
gagttcaaatctcatgcggtcgtcca

1-18tRNA-Phe(gaa)c[33943,34017]
gcaccttagctgagatggattagcgttcctgaagagcttgagaggtt
cgttcgattcgaacagggtgcacca

1-19tRNA-Glu(ttc)c[34104,34178]
gcacctatcgtctagtggttaggacaccactctttcacagtgggaacag
agttcgatcctcgttgggtgtgcca

1-20tRNA-Tyr(gta)c[34186,34273]
gggcgtttattccgtaagtggtagcggagggttgtaaatccctagtca
ttgcgactcgagtgggtcgactccattaacgcccacca

1-21tRNA-Ser(gct)c[35304,35392]
ggaagaatagcataacggtattgcagcagattgctaactgtcggtttga
aatatagccttggtggttcgattcccacttcttcgcca

1-22tRNA-Arg(tct)c[38936,39010]
cggggtgtagtctaaggagagagcaggagtcttctaaattccttatgca
ggttcgaatcctgtcacctcgcca

>JF744988.1 Mycobacterium phage Faith1, complete genome

1-tRNA-Thr(cgt)[62646,62719]

gccaccttagctcagttggtagagcagccccttcgtaacgggcaggtcag
cggttcgattccgctaggtggctc
1-2tRNA-Pro(tgg)[62947,63021]
ctggctgtagctcaactggtagagcgtggcttgggtgccaggggttg
caggttcaaactctgtagccagac
1-3tRNA-Trp(cca)[63142,63215]
agctcggtagctcaattggtagagcagcgggtcctcaaagccggttcc
ccgttcgagtcggggtcgggttc
1-4tRNA-Tyr(gta)[63326,63408]
gtggtggttgggcttgtggtggccacctgactgtaaatcaggcgtt
cggcaccgggggttcgattccctcccaccacac
1-5tRNA-Leu(tag)[63822,63896]
ggccctctagccaattggcagaggcacagtttaggtacctgtcagtg
cgagttcgagtctcgggggccac
1-6tRNA-His(gtg)[63897,63966]
gcttagtagcctagtggttaaggcagccggttgatccggtgaacctgag
ttcgattctcagctaaagcc
1-7tRNA-Gln(ctg)[63971,64045]
tgaccgtagcacaactggtagttgcgccgctctggacgagggttg
ttggttcgatcccagctcggtcagc
1-8tRNA-Gly(tcc)[64161,64235]
gtgtagtaacccatgttggtgggtgcctgacttcactcaggatttcg
cgggttcgattcctgtctagcacac
1-9tRNA-Lys(ctt)[64278,64355]
tgccctgtagctcagttggtagagctccgactcttaacggtaggtca
caggttcaagtctgtacgggtaccca
1-10tRNA-Cys(gca)[65545,65618]
gccgtcatggctgagtggttaggcgtcggactgcaaatccggcttatccc
agttcgattctgggtggcggtcc
1-11tRNA-Asn(gtt)[65980,66053]
tcctccgtagctcaattggcagagcgcgcgactgtaacgcgtggttg
tggttcgagtcacccgttggagc
1-12tRNA-Lys(ttt)[66247,66321]
gccctatagctcagttggtagagcaggagactttaatcttcgggtcct
aggttcgatccctagtgggggcacc

>HM208537.1 Escherichia phage HK639, complete genome

1-1tRNA-Ile(gat)[33694,33763]
ggggtgtggctgggctgcatggactgatcacccatgaaaacttcggttc
gaatccggagcactccacca
1-2tRNA-Asn(gtt)[44363,44437]
gggtcagaagcacagcgggttgcttcggctgtaaccgaatggtcgaa
ggttcgaatcctctgtcccacca

>JN035618.1 Gordonia phage GTE7, complete genome

1-1tRNA-Asn(gtt)[13421,13494]

tgtgatatagctcaattggcagagcgctggactgttaatccggtggtga
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 >JN116826.1 Rhodococcus phage RGL3, complete genome
 1-tRNA-Gln(ctg)[46429,46500]
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 gttcgagtccttgacggggagc
 1-3tRNA-Trp(cca)[46643,46716]
 gggcacgtagctcaattggtagagcaccggtctccaaagccggtggttg
 gggttcgagtcctccgggcctgc
 >HQ665011.1 Escherichia phage bV_EcoS_AKFV33, complete genome
 1-tRNA-Met(cat)c[27840,27915]
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 tggttcaaatccactactaattacca
 1-2tRNA-Ile(gat)c[28012,28088]
 gcttcggtagcttagcgatctaaagcactcggctgataaccgagagatcg
 ggggtttaaaccctcccgagtacca
 1-3tRNA-Thr(tgt)c[28664,28738]
 gtcctaaaagcattgttggcgalgcagttgccttgaagcatctgaaccg
 ggttcgattcctggtgggagcacca
 1-4tRNA-Gln(ttg)c[29227,29302]
 tggagagtagtgaacggtagcacaacggcctttgactccgttaatggt
 aggttcgattcctccttctccagcca
 1-5tRNA-Gln(ctg)c[29309,29384]
 tggagtgtagatcaattggcagatcgtcggccttgactccgaaggttcc
 tggttcgatcccaggcactccagcca
 1-6tRNA-His(gtg)c[29617,29693]
 gtggctatatcataattggttaatgacctgattgtgaatcaggcctatg
 tggattcgaattccactagccacccca
 1-7tRNA-Leu(tag)c[30369,30445]
 gcgtgattgatggaatgggcatacataccgtccttagaagtcgggttttg
 agggttcgaatcccttgcacgcacca
 1-8tRNA-Ala(tgc)c[30451,30529]
 ggggaatgggtctgcatggagtggacacctcgttgcaccgaggacatca
 gaacggttcgattccgttattctccacca
 1-9tRNA-Val(tac)c[31168,31241]
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 gttcgattctatcaccgggtacca
 1-10tRNA-Lys(ttt)c[31246,31324]
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 tctgggttcaagtcccaggcgatctacca
 1-11tRNA-Met(cat)c[31514,31591]
 tgcgggttagatctctggtagagatcgctagtctcataagctagaaagag
 gtaggttcgattcctgcacccgcttcca
 1-12tRNA-Pro(tgg)c[31598,31675]

ctccgtgtagctcagtttggccagagcgtttcgtttggggcgatagggtc
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1-13tRNA-Lys(ctt)c[32666,32741]
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aggttcaagtcctagtggtgtacca
1-14tRNA-Asp(gtc)c[32919,32995]
gcgaccggggctggcttggtaatgtactcccctgtcacgggagggaaatg
tgggttcaaactccatcggtcgcgcca
1-15tRNA-Asn(gtt)c[33293,33375]
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acaacgtaggttcgaatcctacacggcccgcca
1-16tRNA-Cys(gca)c[33382,33456]
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ggttcaattccagcagggtgctcca
1-17tRNA-Phe(gaa)c[34209,34283]
gcaccttagctgagatggattagcgttgcctgaagagcttgagaggtt
cgttcgatacgaacagggtgcacca
1-18tRNA-Trp(cca)c[34290,34366]
attcctagagtgttactggacagcatgtcgggtctccaaaccgtacggtc
taggttcgagtcctagtaggttgcca
1-19tRNA-Glu(ttc)c[34375,34451]
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cgggttcgatccccgcacaggacgcca
1-20tRNA-Tyr(gta)c[34459,34549]
gttgattagtagtctagaggtagcgaagcagactgtaaatctgccgact
cggaagggtctcgggtggttcgactccatcatccaacacca
1-21tRNA-Leu(taa)c[35426,35502]
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tgggttcgaatcccaccaccctacca
1-22tRNA-Ser(gct)c[36092,36180]
ggaagaatagcataacggtattgcagcagattgctaattctcggttga
aataatagccttgtgggttcgattcccacttcttcgcca
1-23tRNA-Arg(tct)c[37799,37873]
cggggtgtagtctaaggagaggcaggagtcttctaaattccttatgca
ggttcgaatcctgtcacctcggcca

>JN116823.1 Rhodococcus phage REQ2, complete genome

1-1tRNA-Leu(taa)[30212,30288]
gtccgagtcgctccgggctgtcagcggccgactaaaatccgccgag
tgtgggttcgagtcctcactgggggcac
1-2tRNA-Ser(cga)[48487,48575]
ggaagatgaaccgcgaatggtcgcgggaccctcgaaagcggatcgggc
gtgcaagcgtcaggggttcgattcctccgtcttcgcca
1-3tRNA-Ser(gct)[48577,48662]
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cacagcgccatgaggttcgactcctccactctccgc
 >HQ711985.1 Pseudomonas phage vB_PaeS_PMG1, complete genome
 1-tRNA-Gly(tcc)[50917,50992]
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 gggttcaagtcgccgagccgctcca
 >JN116827.1 Rhodococcus phage RER2, complete genome
 1-tRNA-Asn(gtt)[44961,45034]
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 aggttcgagtccttctacgtgagc
 1-3tRNA-Trp(cca)[45160,45234]
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 ggggttcgagtcctccgggcctgc
 >HQ698895.1 Synechococcus phage S-CBS4, complete genome
 1-tRNA-Thr(tgt)c[4456,4527]
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 agttcgactcttgcgggggct
 >JX182372.1 Streptomyces phage TG1, complete genome
 1-tRNA-Thr(cgt)[39556,39630]
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 acggttcgaatccgtcggaaggctc
 >JF946695.1 Mycobacterium phage SWU1, complete genome
 1-tRNA-Asn(gtt)[4193,4265]
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 ggttcgagtccttccatgtcagc
 1-2tRNA-Trp(cca)[4343,4416]
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 aggttcgactcctggcgtgtatgc
 1-3tRNA-Gln(ctg)[4472,4546]
 tccccgttcgttaatcggttaagacacccggctctggaccgggcaattga
 ggttcgagtccttggcggggagcca
 >JX182369.1 Streptomyces phage phiHau3, complete genome
 1-tRNA-Trp(cca)[1200,1270]
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 ttcgactcctgccggcgtgc
 >AB712291.1 Enterococcus phage BC-611 DNA, complete genome
 1-tRNA-Trp(cca)[29838,29911]
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 >JQ965645.1 Salmonella phage SSU5, complete genome
 1-tRNA-Lys(ttt)c[30485,30565]
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 ccacaatgatcttggtcattggtgagttccc
 1-2tRNA-Asn(gtt)[42525,42599]
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 >JX195166.1 Pectobacterium phage My1, complete genome
 1-1tRNA-Gln(ctg)c[26934,27009]
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 aggttcgagacctatacttcagcca
 1-2tRNA-His(gtg)c[27132,27208]
 gtggccgaagcatttattggatgatgttcgatctgtgacatcgaggaag
 tgggatcggtaccaccggtcaccca
 1-3tRNA-Ser(gga)c[28674,28765]
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 1-4tRNA-Leu(tag)c[29278,29362]
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 1-5tRNA-Val(tac)c[29933,30007]
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 1-6tRNA-Ile(gat)c[30016,30091]
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 tggttcgagtcagttcggagtacca
 1-7tRNA-Gly(tcc)c[30706,30780]
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 ggttcgactccctcatcccgacca
 1-8tRNA-Met(cat)c[31551,31628]
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 1-9tRNA-Leu(taa)c[31718,31794]
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 1-12tRNA-Pro(tgg)c[32742,32817]
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 1-13tRNA-Thr(tgt)c[33713,33787]
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 1-14tRNA-Lys(ttt)c[34480,34556]
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 aaggttcgagtccttcacagtcacca

1-15tRNA-Gly(gcc)c[34881,34954]
gcgttcgtagttaaatggtataatttctggttgccaaccagaggttgaga
gttcgattctctccgaccgcacca
1-16tRNA-Lys(ctt)c[35161,35237]
gcttcttagctcaattggttagactaccgactcttaatcggagggtta
taggttcaagtcctatagagacacca
1-17tRNA-Asp(gtc)c[35406,35482]
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1-18tRNA-Asn(gtt)c[35489,35566]
ggttccttagctctaattggttagagcggcatcttgtaagttgagggtt
gctggttcgaatccagcaggaaccgcca
1-19tRNA-Trp(cca)c[36999,37075]
atcgaccgagtggtactggacagcataccggtctccaaaaccgtgtggtt
agggttcgagtccttagtctttgcca
1-20tRNA-Arg(acg)c[37832,37906]
gcagacatagtttaacggaaagaatctatagctacgaactatagggtggt
ggttcgattccatctgtctgtacca
1-21tRNA-Gln(ttg)c[37913,37988]
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agggttcaattcctacagttcctgcca
1-22tRNA-Met(cat)c[38089,38164]
tgcgagtttagagttctggtgaactcatgaggctcatatcctcatccagaa
agggttcgattccttactcgttcca
1-23tRNA-Glu(ttc)c[38172,38246]
gcacctatcgtctaattggttaggacaactgcctttcgagcagtgaatcgg
agttcgattctccgtgggtgtacca
1-24tRNA-Tyr(gta)c[38253,38333]
gtgggattggcacagcggcgactgcgggagactgtaaatctcctatacta
cacctagggttcgagtcctagatcccacacca
1-25tRNA-Ser(gct)c[38821,38912]
ggaagggttcactaatttggttaagtgagcggactgctaattccatcgggtt
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1-26tRNA-Arg(tct)c[39776,39852]
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cagggttcgaatcctgtaggcggtacca
1-27tRNA-Leu(tag)c[40909,40981]
tgccctcttggtctagttggaaatgatagtaggggtacaggcgta
ggttcgagtcctacagtgggaaa

>JX182370.1 Streptomyces phage R4, complete genome

1-1tRNA-Phe(gaa)[1094,1167]
gggccggtagctcagttggaagagcggcggagtgaatcccgaggtcgc
agggttcgagtcctgcctggccac

>JX100810.1 Caulobacter phage CcrColossus, complete genome

1-tRNA-Trp(cca)[59240,59325]
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aagccttcgggggttcgaatccctcttcccgtgcc
1-2tRNA-Gly(gcc)[59336,59412]
gcgtctatagtatatggctgattacccttcgttgccaacgaagagagg
cgggttcgattcccgtagacgtcca
1-3tRNA-Gly(tcc)[59417,59490]
gcgtccgtagctcaatggtagagcaatgggctccaccccggtgctcgtgg
gttcgatccccaccggacgtcca
1-4tRNA-Glu(ttc)[60055,60133]
ggggccttcgtctaaactggactaaggatagccggctttcaccggcaga
tcggggttcgaaccccgtagcccttcca
1-5tRNA-Asp(gtc)[60149,60223]
ggtgcgttcgtatatcggtaatacaccggactgtcgatccgggaagacg
ggttcgactcccgtagcaccgcca
1-6tRNA-Pro(cgg)[61499,61576]
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ggttcaactcctcgggctctgacca
1-8tRNA-Pro(ggg)[61660,61736]
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caggttcaaatcctgctacactgacca
1-9tRNA-Lys(ctt)[62019,62108]
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1-10tRNA-Leu(cag)[62115,62202]
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1-11tRNA-Leu(caa)[62210,62296]
gcccaactggtcgaatggcagacgcaggatactcaaaatatccggaccg
caaggtcgtcccgttcaagtccgggttgggcacca
1-12tRNA-Leu(gag)[62304,62391]
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1-13tRNA-His(gtg)[62400,62474]
tctggtgtagtcgagtggttaagacccgcattgtggatcggaggctct
ggttcaatcccagcaccagtacca
1-14tRNA-Ala(tgc)[62479,62553]
ggggatgtagctcaggggtagagcggctgtttgcaagcagcgggtcggg
ggttcgaatccctccatctccacca
1-15tRNA-Ser(tga)[62821,62908]
ggatgtatggctgagaggctgaaagcggcgttggaaaacgggtcgacc

gcaaggctgcgggagttcgaatctctctacatccgcca
 1-16tRNA-Val(gac)[68535,68609]
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 ggtcaattccctcacctgctacca
 1-17tRNA-Ile(gat)[68611,68686]
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 1-18tRNA-Ile(gat)[68695,68770]
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 1-19tRNA-Val(cac)[68805,68880]
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 gtgttcgattcacaggtcgcgacca
 1-20tRNA-Gln(ctg)[68888,68961]
 tgggggatcgtctaattgtaggacggtagagtcgttctacagatatag
 gttcgagtcctattccccatcca
 1-21tRNA-Gln(ttg)[68968,69041]
 tctcgggtggtctaattgtaggacatctggtttggtccagagggtggg
 gttcgattccttggccgagagcca
 1-22tRNA-Asn(gtt)[69054,69142]
 tctcatgtggcgaactggtaaacgcaccggactgttaatccggcgtctc
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 1-23tRNA-Arg(acg)[69159,69255]
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 ctagctggagttgaaaaggctggttcgaatccagcccagggcgcca
 1-24tRNA-Arg(acg)[69260,69337]
 agcgaatagctcagtgatttagagcgttcccctacgaagggaagggtc
 gggggttcgagtcctccatcgctgcca
 1-25tRNA-Cys(gca)[132216,132302]
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 aagcctatcgtgggttcgattccactcgtagctcca
 1-26tRNA-Met(cat)[132962,133038]
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 1-27tRNA-Met(cat)[133537,133623]
 ggtgtggtggctcgacaggaaggcgcggcctcataagccggagggcga
 aagtctatgtaggttcgaatcctactcacacctcca
 1-28tRNA-Arg(tct)c[249029,249104]
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 tggttcgagtcagtagggatcgcca
 >JX100809.1 Caulobacter phage CcrSwift, complete genome
 1-tRNA-Trp(cca)[47039,47114]
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 aggttcgagtcctgcgaccggcgcca

1-2tRNA-Gly(gcc)[47120,47194]
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ggttcgagtcgccggtggacgctcca
1-3tRNA-Gly(tcc)[47201,47274]
gcggatatagtctaaaggagagctactgccttccaagcagaagatgcgg
gttcgagcccgctatccgctcca
1-4tRNA-Glu(ttc)[47431,47508]
ggcccggtcgtctagcggttgcaggattcgtgactttcaatcacgagag
cggagttcaggtctccgtcgggcctcca
1-5tRNA-Asp(gtc)[47532,47606]
ggtgcgttcgtatatcggtaatactccgattgtcgatccggcaagagg
ggttcgattcccctacgcaccgcca
1-6tRNA-Pro(cgg)[48467,48542]
cggggtgtagctcagtcggtagagcgctcgggtcgggaccgagaggccgt
gggttcgagtcgccccacccagacca
1-7tRNA-Pro(ggg)[48550,48624]
cgggatgtagctcagcggtagagcgcggctggggccgcgagggccgca
ggttcgagacctgccacccgacca
1-8tRNA-Lys(ctt)[48813,48899]
ggatgtgtcacctcagtgccgagaggaccgggctcttaatccggcagcga
aagctcatcgtgggttcgagtcaccacacatcctcca
1-9tRNA-Lys(ttt)[48907,48996]
gcacgagtgacccgagcggcgaaggcgctcgacttttaatcgactgggcg
tcacgctcaccgagggttcgagtcctcctcgtgctcca
1-10tRNA-Leu(cag)[49003,49088]
gcgaaagtggcggaacaaggtagacgcaccggtctcaggtaccggcggt
tcggtcatgagggttcgagtcctcctttcgtacca
1-11tRNA-Leu(caa)[49096,49180]
gccggtctggcggaatggcagacgcagtggttcaagtcaccgcctt
cgggcgtcccggttcgatccggggaccggcacca
1-12tRNA-Leu(gag)[49187,49274]
tgcgaagtggcggaatttggtagacgcaccggcatgagaggccggcgccc
ttcggggcgtgagggttcgagtccttcttcgcgacca
1-13tRNA-Ala(tgc)[49365,49435]
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cgagtcacatactccacca
1-14tRNA-Ser(cga)[49440,49527]
ggttaggttggtctgagaggccgaaggcgcccgttcgaaaacgggagaacc
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1-15tRNA-Ser(gga)[49532,49619]
ggatgtatggctgagaggccgaaggcgcccgttgaaagcgggtgaacc
gcaaggttcgtaggttcgaatcctactgcacccgcca
1-16tRNA-Phe(gaa)[50907,50982]
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aggttcgattcctcccgtttccacca
1-17tRNA-Val(gac)[50988,51063]
gcccgatgagccagatgggaaggcgcgccgtgacatggcgggattgaga
aggttcgattccttcacagcacca
1-18tRNA-Ile(gat)[51066,51141]
gcaagtgtagctcagtcggtagagcagcgaccgataatccgcctgtccc
tggttcgagtcaggcatttgcacca
1-19tRNA-Ile(gat)[51149,51223]
tgtggcatagctcagggtagagcgcgccttgataagcgtgaggtcggg
ggttcgaagccctctgccactacca
1-20tRNA-Val(cac)[51257,51332]
tggcgttagcatagtgggagtcagggtgtcacatacctcgatcgaac
tggttcgattccagtaacgccaacca
1-21tRNA-Gln(ctg)[51338,51411]
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gttcgagtcctagcccctcatcca
1-22tRNA-Gln(ttg)[51419,51492]
tctcgggtggtctaattggaagacatctggtttggtccagaggattggg
gttcgattccttggccgagaacca
1-23tRNA-Ile(aat)[51508,51582]
tccagtcaatgcacaagggtgtgcagcgccactgttaatgcctgtgagccc
ggttcgattccggggtctggagcca
1-24tRNA-Arg(tct)[51785,51862]
gcgcgggtagctcaatggaccagagcagccgtcttctacacggtgggtt
gggggttcgagtcctccccgcgcgcca
1-25tRNA-Cys(gca)c[101259,101347]
gcttcggtggactgagaggttaggcgcgggattgcaaatctctgctggtg
ggaacacctatgagggttcgagtcctcccgaagctcca
1-26tRNA-Lys(ctt)c[101927,102000]
tttcgaatagcacagtggtagtgaacagcctctaagctgtcggtcgc
gggttcaatccccgcttcgatgaa
1-28tRNA-Met(cat)[103075,103153]
cgcgggtagaggagtcgggtgtcctcgtctggctcataaccaggagat
cgtgggttcaaatcccactcccgtccca
1-29tRNA-Met(cat)[103563,103647]
ggtacggtggctcgacaggaaggcatcgccctcataagccgagggttcg
tcccaatcctggttcaaatccaggtcgtacctcca

>JQ806764.1 Salmonella phage vB_SosS_Oslo, complete genome

1-1tRNA-Asn(gtt)[45678,45752]
gggtcagtcgtataaaggtcattacggaaggctgtaaccttctatcgt
ggttcgagtcacgctggcccccca
1-2tRNA-Thr(tgt)[45758,45833]
gctggttagctccaatggtagagcggtcgccttgtaagcgaatgggtag
cggttcaagtccgttaaccagcacca

>JN986845.1 Enterobacteria phage vB_EcoS_ACG-M12, complete genome

1-tRNA-Arg(tct)[3487,3561]

gctctgttagcttaatggaaaagccgcagccttctaagctgttgatggt

ggttcgactccaccacggggcgcca

>JX100813.1 Caulobacter phage phiCbK, complete genome

1-tRNA-Trp(cca)[47786,47861]

gtcggtagctcatgggtagagcggcggtctccaaaccgcgcgtggc

aggttcgagtcctgcgaccggcgcca

1-2tRNA-Gly(gcc)[47867,47941]

gcgtccatcgtatatgggttattgcttcggttgccaacgcgacgaaccg

ggttcgagtcgggtggacgctcca

1-3tRNA-Gly(tcc)[47948,48021]

gcggatatagctcaaaggagagctactgccttccaagcagaagatgcgg

gttcgagccccgctatccgctcca

1-4tRNA-Glu(ttc)[48178,48255]

ggccccggtcgtctagcggtttcaggaattcgtgactttcaatcacgagag

cggagttcgagtcctccgctcgggcctcca

1-5tRNA-Asp(gtc)[48278,48352]

ggtgcgttcgtatatcggtaataactccgattgtcgatccggcaagagg

ggttcgattcccctacgcaccgcca

1-6tRNA-Pro(cgg)[49792,49867]

cggggtgtagctcagtcggtagagcgtcggtcgggaccgagaggccgt

gggttcgagtcgccaccagacca

1-7tRNA-Pro(ggg)[49875,49949]

cgggatgtagctcagcggtagagcgcggctggggccgcgagggccgca

ggttcgagacctgccaccgacca

1-8tRNA-Lys(ctt)[50140,50226]

ggatgtgtcacctcagtggtcagagaggaccgggtcttaatccggcagcga

aagctcatcgtgggttcgagtcaccacatcctcca

1-9tRNA-Lys(ttt)[50233,50323]

gcacgagtgacccgagcggcgaaggcgctcgacttttaatcgactaggcg

tccgcgcctcaccgaggttcgagtcctcctcgtgctcca

1-10tRNA-Leu(cag)[50330,50413]

gcgaaagtggcggaacggcagacgcactggtctcaggtaccagcgacttc

ggtcatgagggttcgaatccctcctttctgtacca

1-11tRNA-Leu(caa)[50421,50505]

gccggtctggcggaatggcagacgcagtgggttcaagtcaccgcctt

cggggtcccggttcgagccggggaccggcacca

1-12tRNA-Leu(gag)[50511,50599]

tgcgaagtggcggaacttggtagacgcaccggcatgagaggccggcgcc

cttcggggcgtgaggttcgagtccttcttcgcgacca

1-13tRNA-Ala(tgc)[50683,50753]

ggggtatgcgcagggcgaggcatccttgcaaggaagtcggggtgggtt

cgagtcacatactccacca

1-14tRNA-Ser(cga)[50758,50845]
ggtaggttggctgagaggccgaaggcgcccgttgcgaaacgggaggacc
gcaaggttccgtgggttcgaatcccacactacctcca
1-15tRNA-Ser(gga)[50850,50937]
ggatgtatggctgagaggccgaaggcgcccgttggaaagcgggtgaacc
gcaaggttccgtaggttcgaatcctactgcatccgccca
1-16tRNA-Phe(gaa)[51631,51706]
ggactcgtagctcagcaggtagagcgccggcttgaaacccggaggtcgg
aggttcgattcctcccgttccacca
1-17tRNA-Val(gac)[51712,51787]
gcccgatgagccagatgggaaggcgcccggtgacatggcgggattgaga
aggttcgattccttcacagcacca
1-18tRNA-Ile(gat)[51790,51865]
gcaagttagctcagtcggttagagcagcggaccgataatccgcctgtccc
tggtcgagtcaggtcattgcacca
1-19tRNA-Ile(gat)[51873,51947]
tgtggcatagctcagggtagagcgcgcttgataagcgtgaggtcggg
ggttcgaagccctctgccactacca
1-20tRNA-Val(cac)[51981,52056]
tggcgtttagcatagtgggagtcaggggtgtcacatacctcgatcgaac
tggtcgattccagtaacgccaacca
1-21tRNA-Gln(ctg)[52062,52135]
tgagggttcgtctaacggttaggacggctgggtctggtccagctaattag
gttcgagtcctagcccctcatcca
1-22tRNA-Gln(ttg)[52143,52216]
tctcgggtggtctaattggaagacatctggttttggtccagaggattggg
gttcgattccttggccgagaacca
1-23tRNA-Ile(aat)[52232,52306]
tccagtaatgcacaaggtgtgcagcggcactgttaatgcctgtgagccc
gggttcgattccggggtctggagcca
1-24tRNA-Gly(tcc)[52509,52586]
gcgcgggtagctcaatggacccagagcagccgtctccacacggaaggtt
gggggttcgaatccctccccgtgcgcca
1-26tRNA-Cys(gca)c[101969,102057]
gcttcggtggactgagaggttaggcgcgggattgcaaatctctgctggtg
ggaacacctatgagggttcgagtcctcccgaagctcca
1-27tRNA-Gly(tcc)c[102637,102710]
tttcgaatagcacagtggtagtgcaacagccgtcctagctgtcggtcgc
gggttcaatccccgcttcgatgaa
1-29tRNA-Met(cat)[103783,103861]
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cgtgggttcaatcccactcccgtccca
1-30tRNA-Met(cat)[104228,104312]
ggtacgggtggctcgacaggtgaaggcatcggcctcataagccgagggttcg

tcccaatcctggttcaaatccaggtcgtacctcca
 >JX100814.1 Caulobacter phage CcrRogue, complete genome
 1-1tRNA-Trp(cca)[48466,48541]
 gtcggtctagctcatgggtagagcggcggctccaaaaccgcgcgtggc
 aggttcgagtcctcgtccggcgcca
 1-2tRNA-Gly(gcc)[48546,48620]
 gcatccgtagtatataggtgattacagcgcgttgccaacgcgtagagtcg
 ggttcgagtcgccgacggatgctcca
 1-3tRNA-Gly(tcc)[48625,48698]
 gcgggtatagctcaaaggagagttgctgcctccaagcagaagatgcga
 gttcgagcctcgctatccgctcca
 1-4tRNA-Glu(ttc)[49141,49218]
 ggcccggctcgtctagcggttgcaggattcctgactttcaatcaggagag
 cggagttcgagtcctccgtcgggcttcca
 1-5tRNA-Asp(gtc)[49244,49318]
 ggtgccgtcgtatatagggttattatcaccggctgtctcccggtggaaacg
 ggttcgagtcgccgtcggcatcgcca
 1-6tRNA-Pro(cgg)[49997,50072]
 cggggtgtagctcagtcggtagagcgtcgggtcgggaccgagaggccgt
 gggttcgagtcgccgccaccagacca
 1-7tRNA-Pro(ggg)[50080,50156]
 cgggatgtagctcagtttgggagagcgcgcggctgggggccgcgaggccg
 caggttcaagtctgccaccccgacca
 1-8tRNA-Thr(ggt)[50159,50234]
 aacgctgttcgcgctggcttcgcgccacccttggtatggggcggtaga
 aggttcaattccttcagcagacca
 1-9tRNA-Lys(ctt)[50365,50451]
 ggatgtgtcacctcagtggcgagaggaacgggctcttaatccgtcagcgc
 aagctcaccgtgggttcgagtcaccacatcctcca
 1-10tRNA-Lys(ttt)[50457,50546]
 gcacaagtacccgagcggcgaaggcgctcgacttttaatcgactaggcg
 tccagcctcaccgagggttcgagtcctccttctgtctcca
 1-11tRNA-Leu(cag)[50550,50636]
 gcgaatgtggcggaactggtagacgcgccgcctcaggtgccggtgccct
 tcggggcgtgtgggttcgagtcacccttctgtacca
 1-12tRNA-Leu(caa)[50644,50731]
 gccttgctggcggaagtggtagacgcactgttctcaaaaagcaggccggg
 cgaccgggctctgggttcgatcccaggtgaggcacca
 1-13tRNA-Leu(gag)[50739,50826]
 tgcgaagtggcggaactggtagacgcaccggcatgagaggccggcgccc
 ttcggggcgtgagggttcgagtccttcttcgcgacca
 1-14tRNA-His(gtg)[50907,50977]
 gctgatcgccgctgggcggggagcgggttgtgtcccgcctaggcacggtt
 cgatcccgtgggtcagttacca

1-15tRNA-Ala(tgc)[50983,51053]
ggggtatgcgcagggcgcagggcatcctttgcaaggaagtcggggtgggtt
cgagtcacatactccacca
1-16tRNA-Phe(gaa)[51958,52033]
ggactcgtagctcagcaggtagagcggcgttgaaccccgaggtcgg
aggttcgaltcctcccgtttccacca
1-17tRNA-Val(gac)[52039,52114]
gcccgatgagccagatgggaaggcaccgcttgacatggcggcattgaga
aggttcgattccttcacaggcacca
1-18tRNA-Ile(gat)[52120,52195]
gcaagtgtagctcagttggtagagcagcggaccgataatccgcccgtccc
tggtcgagtcaggcatttcacca
1-19tRNA-Ile(gat)[52203,52278]
tgtggcatagctcaggggtcagagcgcgcgttgataagcgtgaggtcgg
tggtcgagaccacctgtcactacca
1-20tRNA-Val(cac)[52313,52386]
aggcgattagctcaatggtagagcaggggtgccacatacctcggctcgtag
gttcgattcctacatcggccacca
1-21tRNA-Gln(ctg)[52393,52466]
tgagggttcgtctaacggtaggacgcctgggtctggtccaggtaatctag
gttcgagtcctagcccctcatcca
1-22tRNA-Gln(ttg)[52473,52546]
tctcgggtcgtctaattgtaagacatctggtttggtccagaggattggg
gttcgattccttggccgagagcca
1-23tRNA-Ile(aat)[52564,52638]
tcagtcgaatgcacaaggtgtgcagcggcactgttaatgcctgtgagccc
ggttcgattccggggtctggagcca
1-24tRNA-Arg(tct)[52840,52917]
gcgcgggtagctcaacggaaccagagcagccgtcttctacacggtgggtt
gggggttcgagtcctccccgtgcgcca
1-25tRNA-Cys(gca)c[102172,102260]
gctacgggtggtccgagaggttaggcgcgggactgcaaattctctgctggtg
gcgacacctatgagggttcgagtcctcccgtagctcca
1-26tRNA-Met(cat)[103047,103125]
cgcggggtagaggagtcgggtgtcctcgtctggctcataaccagaagat
caggggttcaaatcccctcccgtccca
1-27tRNA-Met(cat)[103384,103470]
ggtacgggtggctcgacaggtaaggcatcggcctcataagccgagggacta
gtccccgatcctggttcaaatccaggtcgtacctcca
1-28tRNA-Ala(tgc)[149330,149403]
tccgctgctcgcgggtagccgccgtcgtcttcgggatggcgccccgg
acgatcctgtcggcgtgtcggga

>JQ340389.1 *Vibrio* phage pVp-1, complete genome

1-1tRNA-Met(cat)[37974,38050]

tgcgagaatggagaaatggcgtcttgcgagtttcataagctcgataacgt
ggggttcgaatccccatctcgcaccca
1-2tRNA-Lys(ttt)[38057,38133]
gcgcgtgtagctcagttggtagagcatctgacttttaatcaggtggtcg
gtgggtcagtcacactacgcgacca
1-3tRNA-Glu(ttc)[38135,38210]
acaccggaagacagatggattggctgcacccttcaaggaggagtttgc
gggttcgagtcgccgtccggtgtacca
1-4tRNA-Ala(tgc)[38217,38292]
ggggaattagctcagttgggagagcagggtcttgaaggctcaggtcat
cgggttcgagtcgatattctccacca
1-5tRNA-Met(cat)[38381,38457]
agaggcttggctgagttggttatagcgactccttcagcggagtaagacg
ggggttcgagtcacctcagcctctacca
1-6tRNA-Tyr(gta)[38550,38639]
ggttgaatgcgacgaattggttaagtcagcggactgtaaatccgtagccac
cgagaggggcatctaggttaagtcctagttcaaccacca
1-7tRNA-Asn(gtt)[38646,38721]
ggggaattaactcagcggtcagagtggtgcctgttaagcagctggctcgt
aggttcaaatcctacattccccgcca
1-8tRNA-Asp(gtc)[38728,38805]
gcggctgtgtcgagatggttaggcaacctcctgtcacggaggagtagc
gtgggttcaagtcctcagtcgcgcca
1-9tRNA-Pro(tgg)[38812,38890]
cggggtgtaatgtcagtcgttcagcggctcgttggatgcgagaggt
cgtaggttcgaatcctacctccccgacca
1-10tRNA-Leu(tag)[39227,39313]
gcaggagtggcgtaattggttagccgcgctggatttagattccagtggtct
ttgtaccgtgaggggtcaagtcctcctcctgtacca
1-11tRNA-Gly(tcc)[39882,39968]
gcgtactgaagactgagcggtcggtcactagcctccaagctagcgcct
taatcgggtaggggttcgactccctctgtacgtcca
1-12tRNA-Thr(tgt)[40148,40223]
gcttccttagctcagttgggagagcagctcacttgaatgagcaggtcgt
ccgttcgaatcggacaggagcacca
1-13tRNA-Gln(ttg)[40431,40506]
aggggattagctcagttggtagagcatcggaattgactccgagggtcgc
aggttcaagtcctgcacccccgcca
1-14tRNA-Val(tac)[40772,40848]
gcaggattagctcagtagagtagagcacttccttacaaggaaggggtcgt
taggttcaagtcctacatcctgtacca
1-15tRNA-Ile(gat)[41719,41794]
acttcgtagctcagttggtagagcaaacgaccgataatcgtaggtcac
tggttcgagtcagtcgggagtacca

1-16tRNA-Met(cat)[41796,41871]
 gtcccttagctcagtggttagagcgtcctgctcataacaggagggtcac
 tggttcaagtcagtaaggggcacca
 1-17tRNA-Phe(gaa)[42188,42263]
 gcgggaatagctcagtaggtagagcacttggtgaagaccttggtgtcgc
 tggttcaattccagcttcccgacca
 1-18tRNA-Arg(acg)[42272,42349]
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 tggggttcgagtcctgatcgcgcgcca
 1-19tRNA-Ser(gct)[42354,42443]
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 1-20tRNA-His(gtg)[44928,45004]
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 cgggttcgaaccccgtagtcacccca
 1-21tRNA-Arg(tct)[45236,45312]
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 taggttcgaatcctacaggcggtgcca
 1-22tRNA-Leu(taa)[45497,45583]
 gtggcggtggtggaattgtaatacacgtgggacttaaaatcccatgcc
 tagaggattgagagttcagttctctccgcagtagcca

>JQ182736.1 Enterobacteria phage vB_EcoS_Rogue1, complete genome

1-1tRNA-Arg(cct)[3387,3462]
 gttctgctggcgtaacaggataacgcagagacctcctaagtctcagttgc
 tggttcgagtcagtcggaacacca

>JX100811.1 Caulobacter phage CcrKarma, complete genome

1-1tRNA-Trp(cca)[47887,47962]
 gcgggtctagctcatgggtagagcggcggtcctccaaaaccgcgcgtggc
 aggttcgagtcctgcgaccggcgcca
 1-2tRNA-Gly(gcc)[47968,48042]
 gcgtccatcgtatatgggttattgcttcgctgtccaacgcgacgaaccg
 ggttcgagtcgccgtggacgctcca
 1-3tRNA-Gly(tcc)[48049,48122]
 gcggatatagctcaaaggagagctactgcctccaagcagaagatgcgg
 gttcgagccccgctatccgctcca
 1-4tRNA-Glu(ttc)[48279,48356]
 ggccccgtcgtctagcggttgcaggattcgtgactttcaatcacgagag
 cggagttcgagtcctcggtcggcctcca
 1-5tRNA-Asp(gtc)[48380,48454]
 ggtgcgttcgtatatcggtaatactccgattgtcgatccggaagagg
 ggttcgattcccctacgcaccgcca
 1-6tRNA-Pro(cgg)[49317,49392]
 cggggtgtagctcagtcggtagagcgctcgggtcgggaccgagaggccgt
 ggggttcgagtcgccccaccagacca

1-7tRNA-Pro(ggg)[49400,49474]
cgggatgtagctcagcggtagagcgcgcgctgggggcccgcgagggccgca
ggttcgagacctgccaccccgacca
1-8tRNA-Thr(ggt)[49480,49552]
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ttcaattccttcagcagcacca
1-9tRNA-Lys(ctt)[49663,49749]
ggatgtgtcacctcagtggcgagaggaccgggctcttaatccggcagcga
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1-10tRNA-Lys(ttt)[49755,49844]
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tcacgctcaccgagggtcgagtcctcctcgtgctcca
1-11tRNA-Leu(cag)[49851,49936]
gcgaaagtggcggaacaaggtagacgcaccggtctcaggtaccggcggct
tcggtcatgagggtcgagtcctcctttcgtacca
1-12tRNA-Leu(caa)[49944,50028]
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cgggcgtcccgttcgatgccggggaccggcacca
1-13tRNA-Leu(gag)[50035,50122]
tgcaagtggcggaatttggtagacgcaccggcatgagaggccggcgccc
ttcggggcgtaggggttcgagtccttcttcgcgacca
1-14tRNA-Ala(tgc)[50213,50283]
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cgagtcacatactcacca
1-15tRNA-Ser(cga)[50288,50375]
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1-16tRNA-Ser(gga)[50380,50467]
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1-17tRNA-Phe(gaa)[51757,51832]
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aggttcgactcctccggttcacca
1-18tRNA-Val(gac)[51838,51913]
gcccgatgagccagatgggaaggcgccgctgacatggcgggattgaga
aggttcgattccttcacagcacca
1-19tRNA-Ile(gat)[51916,51991]
gcaagtgtagctcagttggtagacgagcgaccgataatccgccgctccc
tggttcgagtcaggcatttcacca
1-20tRNA-Ile(gat)[51999,52073]
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1-21tRNA-Val(cac)[52107,52182]
tggcgtttagcatagtgggagtcaggggtgtcacatacctcgatcgaac

tggttcgattccagtaacgccaacca
 1-22tRNA-Gln(ctg)[52188,52261]
 tgagggttcgtctaacggtaggacggctgggtctggccagctaattctag
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 1-23tRNA-Gln(ttg)[52269,52342]
 tctcgggtggtctaattggaagacatctggtttgggtccagaggattggg
 gttcgattccttgccgagaacca
 1-24tRNA-Ile(aat)[52358,52432]
 tccagtcattgcacaagggtgtgcagcggcactgttaatgcctgtgagccc
 ggttcgattccggggtctggagcca
 1-25tRNA-Arg(tct)[52635,52712]
 gcgcgggtagctcaatggaccagagcagccgtcttctacacggtgggtt
 gggggttcgaatccctccccgtgcgcca
 1-26tRNA-Cys(gca)c[102537,102625]
 gcttcggtggactgagaggttaggcgcgggattgcaaatctctgctggtg
 ggaacacctatgagggttcgagtcctccccgaagctcca
 1-27tRNA-Lys(ctt)c[103205,103278]
 tttcggaatagcacagtggtagtgcaacagcctctaagctgtcggtcgc
 gggttcaatccccgcttcgatgaa
 1-29tRNA-Met(cat)[104351,104429]
 cgcggggtagaggagtcgggtgtcctcgtctggctcataaccaggagat
 cgtgggttcaaatcccactcccgtccca
 1-30tRNA-Met(cat)[104796,104880]
 ggtacgggtggctcgacaggtgaagcatcggcctcataagccgagggttcg
 tcccaatcctggttcaaatccaggtcgtacctcca

>JQ086372.1 Enterobacteria phage HK446, complete genome

1-tRNA-Asn(gtt)[35097,35171]
 gggtcagtcgtataaaggtcattacggaaggctgtaaccttcttatcgt
 ggttcgagtcacgctgtcccgcca
 1-2tRNA-Thr(tgt)[35177,35252]
 gctggttagtccaatggtagagcagtcgccttgaagcgaatgggtag
 cggttcaagtccgttaaccagcacca

>JQ182727.1 Enterobacteria phage mEpX1, complete genome

1-tRNA-Ala(cgc)c[30896,30978]
 ataatgttggcgaggattcagacgccgtatttcgccaatatgaatacc
 gttattttctcagtcagggccggccatttc

>HQ141411.1 Lactobacillus phage Sha1, complete genome

1-2tRNA-Lys(ttt)c[32732,32820]
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 atactatgcagatgcaggttcgactcctaccgctcgcgt
 1-3tRNA-Trp(cca)c[33058,33150]
 tgcgagcgtagttcaacggtagaacaattccaagtcttgaagcccatt
 cttcttgactactatgcaggttcgactcctgccgctcgcgt

>JQ062992.1 Bacillus phage phIS3501, complete genome

1-tRNA-Met(cat)c[1571,1644]
 ggaccttagctcagttggtcagagcagacggctcataaccgtccggtca
 taggttcaaatacctataaggtcca
 >HE775250.1 Salmonella phage vB_SenS-Ent1 complete genome
 1-tRNA-Ser(tga)c[5658,5736]
 aactggaataattgaggcaaaattaagggcccttgaagggcctttcgt
 tactcaggttctgagaccttagccgctt
 >JX316028.1 Erwinia phage phiEaH2, complete genome
 1-tRNA-Trp(cca)[167025,167100]
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 aggttcgaatccttgtgccctgtcca
 1-2tRNA-Cys(gca)[167459,167534]
 ggggcgatggctcgagcggtaaggcgagtgattgcaaatcacttttaggc
 cggttcaaataccggctcgtccctcca
 1-3tRNA-Gly(ccc)[169219,169294]
 gcgagtatactcagctggtagagcttctggttcccaaccagacggctcgt
 gatttcgaatctcattgctcgtcca
 1-4tRNA-Tyr(gta)[169404,169489]
 ggcgcggtactcaagtggtaacgagagcagactgtaaatctgttcctt
 cgggcttcgtaggttcaaatacctccctgccacca
 1-5tRNA-Glu(ttc)[169496,169570]
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 agttcaattctccgaggaacgcca
 1-6tRNA-Asp(gtc)[169727,169804]
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 1-7tRNA-Ile(gat)[169814,169889]
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 1-8tRNA-Met(cat)[169896,169971]
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 tggttcgaatccagccagaaccacca
 1-9tRNA-His(gtg)[169980,170056]
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 1-10tRNA-Ser(gct)[170062,170151]
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 cgaaagctgcccgtgtgtcgaatcacatttccgcca
 1-11tRNA-Met(cat)[170349,170424]
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 aggttcgattcctgtcatcgttcgcc
 1-12tRNA-Asn(gtt)[170432,170508]
 ggttccatagctcagttggtagagcggctgcctgttaagcagtaggtcc
 ctggttcgagtcaggtggtaccgcca

>JX100812.1 Caulobacter phage CcrMagnet, complete genome

1-1tRNA-Trp(cca)[47077,47152]

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aggttcgagtcctgcgaccggcgcca

1-2tRNA-Gly(gcc)[47158,47232]

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ggttcgagtcgccgggtggacgctcca

1-3tRNA-Gly(tcc)[47239,47312]

gcggatatagctcaaggagagctactgccttccaagcagaagatgcgg

gttcgagccccgctatccgctcca

1-4tRNA-Glu(ttc)[47468,47545]

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cggagttcagtcctccgtcgggcctcca

1-5tRNA-Asp(gtc)[47569,47643]

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ggttcgattcccctacgcaccgcca

1-6tRNA-Pro(cgg)[48504,48579]

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gggttcgagtcgcccccaccagacca

1-7tRNA-Pro(ggg)[48587,48661]

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ggttcgagacctgccaccccgacca

1-8tRNA-Lys(ctt)[48850,48936]

ggatgtgtcacctcagtggcgagaggaccgggctcttaatccggcagcga

aagctcatcgtgggttcgagtcaccacacatcctcca

1-9tRNA-Lys(ttt)[48942,49031]

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tccagcctcaccgaggttcgagtcctcctctgtgctcca

1-10tRNA-Leu(cag)[49038,49123]

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tcggtcatgaggttcgagtcctcctcttcgtacca

1-11tRNA-Leu(caa)[49131,49215]

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cgggcgtcccgggttcgatgccggggaccggcacca

1-12tRNA-Leu(gag)[49222,49309]

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ttcggggcgtgaggttcgagtccttcttcgacacca

1-13tRNA-Ala(tgc)[49400,49470]

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cgagtcacacatactccacca

1-14tRNA-Ser(cga)[49475,49562]

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gcaaggttcggtgggttcgaatccacacacctcca

1-15tRNA-Ser(gga)[49567,49654]

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1-16tRNA-Phe(gaa)[50349,50424]
ggactcgtagctcagcaggtagagcgccggcttgaaacccggaggtcgg
aggttcgactcctcccggttccacca
1-17tRNA-Val(gac)[50430,50505]
gcccgatgagccagatgggaaggcgcccgctgacatggcgggattgaga
aggttcgattccttcacagcacca
1-18tRNA-Ile(gat)[50508,50583]
gcaagtgtagctcagttggtagagcagcggaccgataatccgccgctccc
tggttcgagtcaggcatttcacca
1-19tRNA-Ile(gat)[50591,50665]
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ggttcgaagccctctgccactacca
1-20tRNA-Val(cac)[50699,50774]
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tggttcgattccagtaacgccaacca
1-21tRNA-Gln(ctg)[50780,50853]
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gttcgagtcctagcccctcatcca
1-22tRNA-Gln(ttg)[50861,50934]
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gttcgattccttgcccgagaacca
1-23tRNA-Ile(aat)[50950,51024]
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1-24tRNA-Arg(tct)[51227,51304]
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1-25tRNA-Cys(gca)c[100693,100781]
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1-26tRNA-Lys(ctt)c[101361,101434]
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1-28tRNA-Met(cat)[102508,102586]
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1-29tRNA-Met(cat)[102996,103080]
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>HE956708.2 Yersinia phage phiR201 complete genome
1-1tRNA-Met(cat)c[28563,28638]
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tggttcaatccactactaactacca
1-2tRNA-Ile(gat)c[28645,28718]
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1-3tRNA-Thr(tgt)c[29529,29603]
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1-4tRNA-Gly(tcc)c[30008,30082]
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1-5tRNA-Gln(ttg)c[30089,30164]
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1-6tRNA-Gln(ctg)c[30171,30246]
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1-8tRNA-His(gtg)c[30562,30638]
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1-9tRNA-Leu(tag)c[31489,31565]
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1-10tRNA-Ala(tgc)c[31571,31649]
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1-11tRNA-Val(tac)c[32384,32457]
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1-12tRNA-Lys(ttt)c[32462,32539]
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1-13tRNA-Met(cat)c[33179,33256]
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gtaggttcgattcctgcacccgcttcca
1-14tRNA-Pro(tgg)c[33263,33340]
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tggggttcaatcctcccacggagacca
1-15tRNA-Lys(ctt)c[33686,33762]
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1-16tRNA-Asp(gtc)c[33911,33987]

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1-17tRNA-Asn(gtt)c[34433,34508]
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1-18tRNA-Cys(gca)c[34516,34590]
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1-19tRNA-Trp(cca)c[35423,35499]
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1-20tRNA-Glu(ttc)c[35508,35584]
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cgggttcgatccccgcacaggacgcca
1-21tRNA-Tyr(gta)c[35592,35682]
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1-22tRNA-Leu(taa)c[36601,36686]
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aaatgattgaggttcgagccccctccagatccacca
1-23tRNA-Met(cat)c[37254,37331]
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1-24tRNA-Ser(gct)c[37337,37431]
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1-25tRNA-Arg(tct)c[40505,40581]
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1-26tRNA-Ser(cga)c[41640,41713]
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>JF974287.1 *Vibrio* phage pYD21-A genomic sequence

1-tRNA-Gly(tcc)[10451,10526]
gcgacattagctcaggtggtagagcagaagtttccaaacttaatgcat
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>HQ633071.1 *Synechococcus* phage S-SKS1 genomic sequence

1-tRNA-Gly(tcc)c[52996,53066]
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1-2tRNA-Lys(ttt)c[53142,53215]
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1-3tRNA-Thr(tgt)c[53239,53310]

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1-4tRNA-Ser(gct)c[53313,53402]
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1-12tRNA-Met(cat)c[178433,178507]
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1-1tRNA-Gln(ctg)[4425,4503]
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>KC661279.1 Mycobacterium phage Severus, complete genome
1-1tRNA-Trp(cca)[1682,1755]
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1-2tRNA-Gln(ctg)[1761,1833]
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1-3tRNA-Asn(gtt)[1868,1941]

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 1-4tRNA-Glu(ctc)[4867,4940]
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 1-5tRNA-Tyr(gta)[4944,5024]

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 >KC821607.1 Cellulophaga phage phi19:1, complete genome
 1-tRNA-Pro(tgg)[31057,31131]
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 1-tRNA-Gln(ttg)[31189,31261]
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 1-tRNA-His(gtg)[31268,31341]
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 gatttcgattctcaataaacaccc
 1-tRNA-Leu(tag)[31346,31420]
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 >KC237729.1 Clostridium phage vB_CpeS-CP51, complete genome
 1-tRNA-Ser(gct)[36204,36295]
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 >KC661281.1 Mycobacterium phage Jobu08, complete genome
 1-tRNA-Asn(gtt)[3904,3979]
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 1-tRNA-Trp(cca)[4020,4094]
 aggcacgtagctcaattggtcagagcagcgtctccaaagccggcgtg
 caggttcgagtcctgccgtgtctgc
 1-tRNA-Leu(cag)[4129,4203]
 ggctcggtaggcaaacaggcaaagccgctgtctcaggaacaggtgcgtg
 ggggttcgactccctcccagctac
 >KC182546.1 Lactococcus phage jm2, complete genome

1-tRNA-Trp(cca)[30552,30624]
 tacgaacatagtatagtggtaagtctacagattccaaacctgtaaacgtg
 ggttcgattcctgctgttcgtgt

>KC691255.1 Mycobacterium phage Dumbo, complete genome

1-tRNA-Arg(cct)[62229,62312]
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 ttcgtcccggttcaaatacgggcgggccttgcc

1-tRNA-Gly(tcc)[62315,62387]
 gcgcccgtggtcgaattggaaagactcctggcttccaccaggttatgca
 ggttcgagtcctgtcgggcgctc

>KC900379.1 Mycobacterium phage PegLeg, complete genome

1-tRNA-Arg(ccg)[32354,32449]
 ctccacgtggcgaatggcaatgtggcagaggggattccggtcccagggg
 gcgggggatctcagacttccgcctgcgttcgactccgtcgtgtgtg

1-tRNA-Trp(cca)[54522,54593]
 atgggcgtagctgactgggaagcaacggctcctcaagccgtgatatgcag
 gttcgaatcctgcccccgtgc

1-tRNA-Asn(gtt)[55442,55513]
 tggcctgtcggtaacggcaaacccagcgcctgttaaggcgtgactcctg
 gttcgaatccaggtaggccagc

1-tRNA-Gln(ttg)[56269,56340]
 cgggacatagctcaaatggcagagtggggcaattggtcccctggattcag
 gttcgactcctggtggcccgc

1-tRNA-Tyr(gta)[56725,56807]
 gcggtctctcccctattggcgaaggccctggctgtaaccagggcttt
 cgagtgtggtggttcgaatccatcaggccgcac

1-tRNA-Gln(ctg)[56976,57048]
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 gttcgaatccttggggagcaac

1-tRNA-Pro(tgg)[57052,57125]
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 aggttcgagtcctcgcacccagac

1-tRNA-Ser(gct)[57421,57502]
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 taacgctgttggtatcgtgccactcctctcc

1-tRNA-Phe(gaa)[57612,57687]
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 cctggttcgaatccagcatcccggc

1-tRNA-Met(cat)[58249,58324]
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 gtcggttcaaatccgaccaccgcaac

1-tRNA-Arg(acg)[58604,58678]
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1-12tRNA-His(gtg)[58681,58753]
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 cggtcgattcgagcagggggac
 1-13tRNA-Leu(cag)[59015,59089]
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 cgagttcgactctcgggcgagctac
 1-14tRNA-Lys(ctt)[60212,60285]
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 1-15tRNA-Gly(tcc)[60444,60520]
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 1-16tRNA-Val(tac)[60573,60644]
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 gttcgattctctcgggggtac
 1-17tRNA-Thr(agt)[60706,60778]
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 ggttcgattccctgttccggctc
 1-18tRNA-Asp(gtc)[60894,60967]
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 gaggttcgaatctcgtcgtcgggac
 1-19tRNA-Glu(ctc)[61355,61429]
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>KC787105.1 Mycobacterium phage Chy4, complete genome

1-1tRNA-Asn(gtt)[4220,4294]
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 1-2tRNA-Trp(cca)[4335,4410]
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 aggttcgactcctggcgtgtatgcca
 1-3tRNA-Gln(ctg)[4418,4490]
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 ggttcgagtccttggcggggagc
 1-4tRNA-Glu(ctc)[4525,4598]
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 ggggtcgaatcccgcagggactac
 1-5tRNA-Tyr(gta)[4602,4682]
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 gcttcgagggttcgagtcctgctcgcgac

>KC821618.1 Cellulophaga phage phi10:1, complete genome

1-1tRNA-Tyr(gta)[31599,31683]
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 actaggaatggaggttcgagtcctcctcaccac

1-2tRNA-Phe(gaa)[31767,31840]
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 cagttcgaatctgtctattccac

>HE962497.1 Streptococcus phage SP-QS1 complete genome
 1-1tRNA-Trp(cca)[24820,24891]
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 ggttcgattcctcactgcttg

>KF306380.1 Mycobacterium phage DrDrey, complete genome
 1-1tRNA-Arg(cct)[63869,63952]
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 ttgtccccgggtcaaatccggcgggccttgcc
 1-2tRNA-Gly(tcc)[63955,64027]
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>KF416344.1 Mycobacterium phage Adzzy, complete genome
 1-1tRNA-Asn(gtt)[4021,4095]
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 1-2tRNA-Gln(ctg)[4132,4204]
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 ggttcgagtccttgaggagagc
 1-3tRNA-Lys(ctt)[4239,4312]
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>KF024731.1 Mycobacterium phage Crossroads, complete genome
 1-1tRNA-Thr(cgt)[63172,63245]
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 1-2tRNA-Pro(tgg)[63707,63780]
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 ctgttcgactcggggtggccgac
 1-3tRNA-Trp(cca)[63851,63924]
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 1-4tRNA-Leu(tag)[64297,64371]
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 1-5tRNA-His(gtg)[64371,64443]
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 1-6tRNA-Tyr(gta)[64446,64528]
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 1-7tRNA-Gln(ctg)[64536,64611]

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1-8tRNA-Gly(tcc)[64727,64801]
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1-9tRNA-Lys(ctt)[64836,64911]
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1-10tRNA-Ser(tga)[64913,65002]
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1-11tRNA-Cys(gca)[66093,66165]
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gttcgattcgcggggacggctcc
1-12tRNA-Asn(gtt)[66434,66507]
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tggttcgagtcacccgttggagc
1-13tRNA-Lys(ttt)[66701,66775]
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>KF024725.1 Mycobacterium phage Whirlwind, complete genome

1-1tRNA-Tyr(gta)[39380,39463]
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1-2tRNA-Thr(cgt)[63038,63110]
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1-3tRNA-Pro(tgg)[63469,63543]
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1-4tRNA-Gly(tcc)[63884,63958]
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1-5tRNA-Trp(cca)[64013,64086]
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1-6tRNA-Leu(tag)[64087,64161]
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1-7tRNA-His(gtg)[64162,64231]
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1-8tRNA-Gln(ctg)[64513,64588]
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 1-10tRNA-Asn(gtt)[65920,65992]
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 1-11tRNA-Lys(ttt)[65997,66070]
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 >KF279417.1 Mycobacterium phage Quink, complete genome
 1-tRNA-Arg(cct)[63291,63374]
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 1-2tRNA-Gly(tcc)[63377,63449]
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 >KF562100.1 Mycobacterium phage HufflyPuff, complete genome
 1-tRNA-Arg(cct)[63504,63587]
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 1-2tRNA-Gly(tcc)[63590,63662]
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 >KF562099.1 Mycobacterium phage Bruin, complete genome
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 1-2tRNA-Gly(tcc)[61923,61995]
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 >KC182547.1 Lactococcus phage jm3, complete genome
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 >KF024721.1 Mycobacterium phage AnnaL29, complete genome
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 >KF024732.1 Mycobacterium phage Contagion, complete genome

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 1-2tRNA-Gly(tcc)[62285,62357]
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 >KF006818.1 Mycobacterium phage Wanda, complete genome
 1-tRNA-Gly(tcc)[91369,91441]
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 >KF017001.1 Mycobacterium phage LittleCherry, complete genome
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 >KF560330.1 Mycobacterium phage Conspiracy, complete genome
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 >KF562102.1 Mycobacterium phage PhatBacter, complete genome
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 >KJ410134.1 Mycobacterium phage CRB1, complete genome
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 >KF493882.1 Mycobacterium phage Jovo, complete genome
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 1-3tRNA-Gly(tcc)c[148773,148845]
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1-7tRNA-Ala(tgc)c[149201,149274]
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gggttcgagtcctcgatgcgctat
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>KT945994.1 Enterococcus phage vB_EfaS_IME197, complete genome
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caggttcgactcctgtcacgtcaa
1-2tRNA-Met(cat)[37521,37594]
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caggttcgagtcctgtatggtcca
>KT968831.1 Pseudomonas phage YMC11/02/R656, complete genome
1-1tRNA-Gly(tcc)c[49179,49254]
gcggctctagctcaactggcagagcgtgtcctccaagtcggatgttgc
gggttcaagtcccgagcggtcca
>KT372002.1 Rhodococcus phage CosmicSans, complete genome
1-1tRNA-Asn(gtt)[1503,1576]
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aggttcgagtccttctacgtgagc
1-3tRNA-Trp(cca)[1702,1776]
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>KT588442.1 Mycobacterium phage LadyBird, complete genome
1-1tRNA-Gln(ctg)[4416,4493]

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 >KR080199.1 Mycobacterium phage Baee, complete genome
 1-tRNA-Arg(ccg)[35179,35273]
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 >KP137435.1 Mannheimia phage vB_MhS_587AP2, complete genome
 1-tRNA-Arg(tct)c[37159,37234]
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 1-2tRNA-Trp(cca)[45736,45811]
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 >KP143763.1 Salmonella phage Shivani, complete genome
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 1-2tRNA-Ile(gat)c[30648,30724]
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 1-6tRNA-Tyr(gta)c[33012,33095]
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 1-7tRNA-Met(cat)c[33972,34046]
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 agttagattctcctccgaccacca
 1-8tRNA-Ser(gct)c[34053,34141]
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 ggtcgaatcctgtcacctcgcca
 1-10tRNA-Ser(act)c[36728,36801]
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>KM363596.1 Mycobacteriophage Omnicron, complete genome
1-tRNA-Trp(cca)[789,865]
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>KT222941.1 Mycobacterium phage NelitzaMV, complete genome
1-tRNA-Arg(cct)[61221,61304]
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ttcgccccggttcaatccggcgggccttgcc
1-2tRNA-Gly(tcc)[61307,61379]
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>KT184694.1 Mycobacterium phage Smeadley, complete genome
1-tRNA-Trp(cca)[4055,4128]
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gggttcgagtcctcctggcctgc

>KR011062.1 Tsukamurella phage TIN2, complete genome
1-tRNA-Asn(gtt)[12390,12463]
tggtatagctcaattggcagagcagcgactgtaatcgcccgttac
aggttcgagtcctgtttccagc

>KT989433.1 Streptomyces phage phiSAJS1, complete genome
1-tRNA-Ala(ggc)c[54626,54723]
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>KJ959632.1 Mycobacterium phage Equemioh13, complete genome
1-tRNA-Gln(ctg)[4930,5004]
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>KM101119.1 Mycobacterium phage Tiffany, complete genome
1-tRNA-Asn(gtt)[3734,3809]
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aggttcgagtcctccagatcagcca
1-2tRNA-Trp(cca)[3850,3924]
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caggttcgagtcctgcccgtgtcgc
1-3tRNA-Leu(cag)[3959,4033]
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>KR080193.1 Mycobacterium phage Luchador, complete genome
1-tRNA-Asn(gtt)[4324,4399]
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>FJ848883.1 Lactococcus phage CB14, complete genome
1-tRNA-Trp(cca)[28914,28986]
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 >FJ848881.1 Lactococcus phage SL4, complete genome
 1-tRNA-Trp(cca)[27455,27527]
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 >KM400683.1 Mycobacterium phage Ariel, complete genome
 1-tRNA-Gly(tcc)[91171,91243]
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 ggttcgagtcctgtcgagcgctc
 1-tRNA-Tyr(gta)[92339,92411]
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 ggttcgagtcggggcggtacc
 >KT186228.1 Streptomyces phage Amela, complete genome
 1-tRNA-Arg(cct)c[45162,45244]
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 1-tRNA-Trp(cca)c[48673,48763]
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 >KR080197.1 Mycobacterium phage FlagStaff, complete genome
 1-tRNA-His(gtg)c[42689,42779]
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 >FJ848882.1 Lactococcus phage CB13, complete genome
 1-tRNA-Trp(cca)[31651,31721]
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 >KM402757.1 Mycobacterium phage Llama, complete genome
 1-tRNA-Ser(gga)[45752,45825]
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 >KT004677.1 Mycobacterium phage UnionJack, complete genome
 1-tRNA-Trp(cca)[4098,4171]
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 >KR011063.1 Tsukamurella phage TIN3, complete genome
 1-tRNA-Asn(gtt)[12481,12554]
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 >KT932699.1 Enterococcus phage vB_EfaS_IME198, complete genome
 1-tRNA-Trp(cca)[35720,35792]
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 >KT438500.1 Mycobacterium phage Pari, complete genome

1-tRNA-Trp(cca)[2393,2468]
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>KT381276.1 Mycobacterium phage Serenity, complete genome
 1-tRNA-Trp(cca)[4230,4303]
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 aggttcgactcctggcgtgatgc
 1-2tRNA-Gly(tcc)[25866,25934]
 tggcgcaatagtcgaatgcaacacccattcttccaaactggatgccgg
 ttcgatcccggtcgccgc

>KT281794.1 Mycobacterium phage Snenia, complete genome
 1-tRNA-Tyr(gta)[39565,39648]
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 1-2tRNA-Thr(cgt)[62793,62865]
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 1-3tRNA-Pro(tgg)[63218,63290]
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 ggttcgactccctggttccgac
 1-4tRNA-Trp(cca)[63633,63706]
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 aggttcgactcctgtccgggttc
 1-5tRNA-Leu(tag)[63707,63781]
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 1-6tRNA-His(gtg)[63782,63851]
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 1-7tRNA-Gln(ctg)[64131,64205]
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 1-8tRNA-Lys(ctt)[64215,64288]
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 1-9tRNA-Pyl(cta)[65431,65523]
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 1-10tRNA-Lys(ttt)[65528,65601]
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>KT326768.1 Mycobacterium phage Tasp14, complete genome
 1-tRNA-Trp(cca)[2429,2504]
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caggttcgagtcctgcagagtcagcc

>KT221034.1 Streptomyces phage SF3, complete genome
1-tRNA-Gly(ccc)[19961,20059]
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cccgccggcgaccaggtcgccgggtgcttgagccgctcggcgacgcgc

>KP202969.1 Achromobacter phage JWX, complete genome
1-tRNA-Pro(tgg)[36081,36157]
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>KM101118.1 Mycobacterium phage Swirley, complete genome
1-tRNA-Trp(cca)[4278,4351]
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>KP137433.1 Mannheimia phage vB_MhS_535AP2, complete genome
1-tRNA-Arg(tct)[36410,36485]
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gagttcgaatctctctgcggtcgcca
1-tRNA-Trp(cca)[47763,47838]
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>KM677210.1 Mycobacterium phage Larenn, complete genome
1-tRNA-Gln(ctg)[4518,4592]
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ggttcgagtccttgatggggagcca

>KP719134.1 Enterobacteria phage JenK1, complete genome
1-tRNA-Ala(tgc)[26546,26619]
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>KT438501.1 Mycobacterium phage Theia, complete genome
1-tRNA-Trp(cca)[4279,4352]
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>KT281791.1 Mycobacterium phage Lolly9, complete genome
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1-tRNA-Thr(cgt)[62858,62930]
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ggttcgattccgttagtggtc
1-tRNA-Pro(tgg)[63270,63344]
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gaggttcaatccttcagccagac
1-tRNA-Gly(tcc)[63683,63757]
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 1-6tRNA-Leu(tag)[63836,63910]
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 1-7tRNA-His(gtg)[63911,63980]
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 1-8tRNA-Gln(ctg)[64260,64335]
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 1-9tRNA-Lys(ctt)[64344,64418]
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 1-10tRNA-Asn(gtt)[65977,66048]
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 1-11tRNA-Lys(ttt)c[66053,66126]
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>KT151955.1 Brevibacillus phage Jenst, complete genome

1-1tRNA-Asn(gtt)c[7178,7252]
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 1-3tRNA-Met(cat)c[7434,7507]
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 1-4tRNA-Cys(gca)c[7546,7618]
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 1-5tRNA-Tyr(gta)c[8396,8478]
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 1-6tRNA-His(gtg)c[8486,8574]
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>KP202970.1 Achromobacter phage 83-24, complete genome

1-1tRNA-Pro(tgg)c[36269,36345]
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>KP273225.1 Mycobacterium phage Sheen, complete genome
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 1-2tRNA-Trp(cca)[5629,5704]
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>JN006061.1 Mycobacterium phage Toto, complete genome
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 1-2tRNA-Gly(tcc)[63175,63247]
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>KM677211.1 Mycobacterium phage Murucutumbu, complete genome
 1-tRNA-Trp(cca)[978,1051]
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>LN887948.1 Escherichia phage slur09 genome assembly slu09, chromosome : 1
 1-tRNA-Arg(tct)[93142,93216]
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 1-8tRNA-Cys(gca)[99955,100030]
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1-9tRNA-Asn(gtt)[100183,100265]
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1-10tRNA-Asp(gtc)[100563,100639]
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1-11tRNA-Pro(tgg)[101674,101749]
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1-12tRNA-Met(cat)[101756,101833]
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1-13tRNA-Lys(ttt)[102472,102549]
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1-14tRNA-Ala(tgc)[102835,102913]
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1-15tRNA-Leu(tag)[102919,102995]
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1-16tRNA-His(gtg)[103672,103748]
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1-17tRNA-Gln(ctg)[104210,104285]
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1-18tRNA-Gln(ttg)[104292,104367]
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1-19tRNA-Thr(tgt)[104885,104971]
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1-20tRNA-Ile(gat)[105722,105798]
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ggggtttaatccctcccggagtacca

1-21tRNA-Met(cat)[105895,105970]
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>KP719133.1 Enterobacteria phage JenP2, complete genome

1-1tRNA-Ala(tgc)[25835,25908]
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>KT591489.1 Mycobacterium phage Archie, complete genome

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 1-2tRNA-Pro(tgg)[62874,62948]
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 1-3tRNA-Trp(cca)[63112,63187]
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 1-4tRNA-Leu(tag)[63760,63834]
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 >KM923971.1 Mycobacterium phage Kratio, complete genome
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 >KP280063.1 Vibrio phage phi 3, complete genome
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 >JQ740787.1 Lactococcus Phage ASCC191, complete genome
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 1-2tRNA-Pro(tgg)[31723,31794]
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 >KR905069.1 Lactobacillus phage iLp84, complete genome

1-tRNA-Ile(tat)[36908,36981]
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>KT246486.1 Mycobacterium phage Chadwick, complete genome
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>KM233454.1 Mycobacterium phage MarQuardt, complete genome
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>KM197169.1 Mycobacterium phage Piro94, complete genome
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>KF279418.1 Mycobacterium phage Anubis, complete genome
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 1-2tRNA-Trp(cca)[3832,3906]
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 1-3tRNA-Leu(cag)[3941,4015]
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>JQ067092.2 Pseudomonas phage PaMx42, complete genome
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>KP137437.1 Mannheimia phage vB_MhS_1152AP2, complete genome
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>KM925136.1 Mycobacterium phage MiaZeal, complete genome
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 1–2tRNA–Tyr(gta)[93005,93077]
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>KM588359.1 Mycobacterium phage Carcharodon, complete genome
 1–1tRNA–Thr(ggt)[28751,28828]
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>KJ743987.1 Sinorhizobium phage phiLM21, complete genome
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>KR060090.1 Pseudoalteromonas phage Pq0, complete genome
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 1–2tRNA–Met(cat)c[14410,14486]
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>KT222942.1 Mycobacterium phage Dusk, complete genome
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>KM652554.1 Streptomyces phage Jay2Jay, complete genome
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 1–5tRNA–Pro(tgg)[74305,74377]
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 1–6tRNA–Pro(tgg)[74381,74456]

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>KR080204.1 Mycobacterium phage Mindy, complete genome

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>KM401838.1 Mycobacterium phage VohminGhazi, complete genome

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1-3tRNA-Gln(ctg)[5594,5666]
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>KP202971.1 Achromobacter phage JWF, complete genome

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>KU998244.1 *Gordonia* phage Smoothie, complete genome
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1-7tRNA-Lys(ctt)[8009,8084]
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>KU998250.1 *Gordonia* phage Rosalind, complete genome
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1-3tRNA-Gln(ctg)[5416,5488]
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>KU998251.1 Gordonia phage KatherineG, complete genome
1-1tRNA-Asn(gtt)[5265,5339]
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1-3tRNA-Gln(ctg)[5416,5488]
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>KU998245.1 Gordonia phage OneUp, complete genome
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>KR053199.1 Gordonia phage GMA4, complete genome
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>KU998237.1 Gordonia phage Vendetta, complete genome
1-1tRNA-Lys(ttt)c[24130,24203]
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>KU998253.1 Gordonia phage Orchid, complete genome

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>KP790011.1 Gordonia phage Gspu1, complete genome
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>KU998238.1 Gordonia phage Splinter, complete genome
 1-1tRNA-Lys(ttt)c[24130,24203]
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>KU998246.1 Gordonia phage ClubL, complete genome
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 >KU998240.1 *Gordonia* phage Woes, complete genome
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 >KX557283.1 *Gordonia* phage Remus, complete genome
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 >KX268652.1 *Acinetobacter* phage vB_AbaS_TRS1, complete genome
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>KX523699.2 Salmonella phage IME207, complete genome

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>KU927497.2 Salmonella phage 100268_sal2, complete genome

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>KT337365.1 Streptococcus phage phiARI0746, complete genome

1-1tRNA-Ser(gct)c[18374,18464]
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>KM236244.1 Salmonella phage Stitch, complete genome

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1-2tRNA-Ile(gat)c[28576,28651]
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1-3tRNA-Thr(tgt)c[29021,29095]
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1-4tRNA-Gly(tcc)c[29501,29575]
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agttcgactctcgatcccgacca
1-5tRNA-Gln(ttg)c[29582,29657]
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1-6tRNA-Gln(ctg)c[29664,29739]
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1-7tRNA-Arg(acg)c[29972,30046]
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ggttcgattccctgaggatgcacca
1-8tRNA-His(gtg)c[30053,30129]
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1-9tRNA-Ser(tga)c[30488,30577]
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1-10tRNA-Ser(gga)c[30955,31044]
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1-11tRNA-Leu(tag)c[31219,31299]
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1-12tRNA-Ala(tgc)c[31545,31620]
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1-13tRNA-Ala(tgc)c[31626,31704]
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1-14tRNA-Val(tac)c[32367,32440]
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1-15tRNA-Lys(ttt)c[32909,32987]
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1-16tRNA-Met(cat)c[33176,33253]
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gtaggttcgattctacacccgcttcca
1-17tRNA-Pro(tgg)c[33260,33337]
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1-18tRNA-Gly(gcc)c[33757,33830]
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1-19tRNA-Lys(ctt)c[34044,34119]
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1-20tRNA-Asp(gtc)c[34196,34272]
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1-25tRNA-Tyr(gta)c[35726,35816]
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1-26tRNA-Leu(taa)c[36731,36807]
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1-27tRNA-Met(cat)c[37359,37436]
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1-28tRNA-Ser(gct)c[37442,37535]
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1-29tRNA-Arg(tct)c[42928,43002]
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>JQ740791.1 Lactococcus Phage ASCC287, complete genome

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1-2tRNA-Pro(tgg)[31890,31961]
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>JQ740793.1 Lactococcus Phage ASCC324, complete genome

1-tRNA-Trp(cca)[31460,31532]
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ggttcgattcctgctgttcgtgt
1-2tRNA-Pro(tgg)[31586,31657]
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>JQ740794.1 Lactococcus Phage ASCC337, complete genome

1-tRNA-Trp(cca)[31458,31530]
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1-2tRNA-Pro(tgg)[31584,31655]
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>JQ740798.1 Lactococcus Phage ASCC368, complete genome

1-tRNA-Trp(cca)[31459,31531]
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1-2tRNA-Pro(tgg)[31585,31656]
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>JQ740799.1 Lactococcus Phage ASCC395, complete genome

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1-2tRNA-Pro(tgg)[31548,31619]

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>JQ740800.1 Lactococcus Phage ASCC397, complete genome

1-tRNA-Trp(cca)[31424,31496]

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ggttcgattcctgctgttcgtgt

1-2tRNA-Pro(tgg)[31550,31621]

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>JQ740801.1 Lactococcus Phage ASCC406, complete genome

1-tRNA-Trp(cca)[31362,31434]

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1-2tRNA-Pro(tgg)[31488,31559]

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>JQ740802.1 Lactococcus Phage ASCC454, complete genome

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1-2tRNA-Pro(tgg)[31892,31963]

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>JQ740803.1 Lactococcus Phage ASCC460, complete genome

1-tRNA-Trp(cca)[31425,31497]

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>JQ740806.1 Lactococcus Phage ASCC476, complete genome

1-tRNA-Trp(cca)[31425,31497]

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1-2tRNA-Pro(tgg)[31551,31622]

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>JQ740809.1 Lactococcus Phage ASCC502, complete genome

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 >JQ740810.1 Lactococcus Phage ASCC506, complete genome
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 1-2tRNA-Pro(tgg)[31558,31629]
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 1-2tRNA-Pro(tgg)[31654,31725]
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 >JQ740814.1 Lactococcus Phage ASCC544, complete genome
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 1-2tRNA-Pro(tgg)[31584,31655]
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 >KC182544.1 Lactococcus phage 936, complete genome
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 >KC182545.1 Lactococcus phage fd13, complete genome
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 1-2tRNA-Pro(tgg)[30040,30111]
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>KF676640.1 Lactococcus phage SK1833, complete genome
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>KM091442.1 Lactococcus phage phi15, complete genome
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>KP793104.1 Lactococcus phage 936 group phage PhiB1127, complete genome
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>KP793105.1 Lactococcus phage 936 group phage Phi19.3, complete genome
1-tRNA-Trp(cca)[28469,28541]
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>KP793107.1 Lactococcus phage 936 group phage PhiD.18, complete genome
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1-2tRNA-Asp(gtc)[28321,28392]
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>KP793110.1 Lactococcus phage 936 group phage Phi43, complete genome
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>KP793112.1 Lactococcus phage 936 group phage Phi129, complete genome
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1-2tRNA-Asp(gtc)[29150,29221]
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>KP793113.1 Lactococcus phage 936 group phage PhiF.17, complete genome
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1-2tRNA-Ser(tga)[29810,29896]
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1–3tRNA–Pro(tgg)[29951,30022]
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>KP793115.1 Lactococcus phage 936 group phage Phi114, complete genome
1–1tRNA–Trp(cca)[30189,30261]
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>KP793116.1 Lactococcus phage 936 group phage Phi13.16, complete genome
1–1tRNA–Trp(cca)[30235,30307]
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>KP793117.1 Lactococcus phage 936 group phage PhiG, complete genome
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1–2tRNA–Ser(tga)[30084,30170]
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>KP793118.1 Lactococcus phage 936 group phage PhiF0139, complete genome
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1–2tRNA–Ser(tga)[29818,29904]
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1–3tRNA–Pro(tgg)[29959,30030]
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>KP793123.1 Lactococcus phage 936 group phage Phi4.2, complete genome
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1–3tRNA–Pro(tgg)[30774,30845]
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>KP793124.1 Lactococcus phage 936 group phage Phi44, complete genome
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>KP793129.1 Lactococcus phage 936 group phage PhiJF1, complete genome
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1-2tRNA-Ser(tga)[31184,31270]
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1-3tRNA-Pro(tgg)[31325,31396]
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>KP793131.1 Lactococcus phage 936 group phage PhiE1127, complete genome
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>KP793132.1 Lactococcus phage 936 group phage PhiM1127, complete genome
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>KP793111.1 Lactococcus phage 936 group phage Phi19.2, complete genome
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>KU578077.1 Mycobacterium phage Marie, complete genome
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>KU984914.1 Mycobacterium phage Malinsilva, complete genome
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 1-3tRNA-Leu(cag)[4057,4131]
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>KU985091.1 Mycobacterium phage Hercules11, complete genome
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 1–1tRNA–Trp(cca)[869,944]
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1-4tRNA-Tyr(gta)[3543,3628]
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 1-8tRNA-Met(cat)[4035,4110]
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 1-9tRNA-His(gtg)[4119,4195]
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 1-10tRNA-Ser(gct)[4201,4290]
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 1-12tRNA-Asn(gtt)[4571,4647]
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 >JF957057.1 Mycobacterium phage BPBiebs31, complete genome
 1-1tRNA-Trp(cca)[2415,2490]
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 >JF957058.1 Mycobacterium virus Heldan, complete genome
 1-1tRNA-Trp(cca)[3881,3954]
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 >JF957059.1 Mycobacterium phage Optimus, complete genome
 1-1tRNA-Gly(tcc)[94272,94344]
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 >JF937090.1 Mycobacterium phage Baka, complete genome
 1-1tRNA-Gly(tcc)[95829,95901]
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 >JF937091.1 Mycobacterium phage Bask21, complete genome

1-tRNA-Arg(cct)[61437,61520]
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1-2tRNA-Gly(tcc)[61523,61595]
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>JF937092.1 Mycobacterium phage DaVinci, complete genome

1-tRNA-Asn(gtt)[5403,5475]
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1-2tRNA-Trp(cca)[5480,5553]
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1-3tRNA-Gln(ctg)[5595,5667]
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>JF937094.1 Mycobacterium virus Hammer, complete genome

1-tRNA-Asn(gtt)[5396,5468]
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ggttcgagtcctccatgccagc
1-2tRNA-Trp(cca)[5472,5545]
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aggttcgaatcctggggagcgtgc
1-3tRNA-Gln(ctg)[5587,5659]
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>JF937101.1 Mycobacterium phage LittleE, complete genome

1-tRNA-Tyr(gta)[95026,95098]
tggcccgtagctcaattggcagagcagccggcgtaattcggcgcgtctc
ggttcgagtcgggcgggctacc

>JN006062.1 Mycobacterium phage Rakim, complete genome

1-tRNA-Arg(cct)[62326,62409]
aagcccgtagctcagtcaggtagagcagccttggcccttgcgggcttgg
ttcgtccccgggtcaaatccgggcgggccttacc
1-2tRNA-Gly(tcc)[62412,62484]
gcgcccgtggtcgaattggaaagactcctggcttccaccaggttataca
ggttcgagtcctgtcgggcgctc

>JF937096.1 Mycobacterium phage Henry, complete genome

1-tRNA-Arg(cct)[62394,62477]
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ttcgtccccgggtcaaatccgggcgggccttgcc
1-2tRNA-Gly(tcc)[62480,62552]
gcgcccgtggtcgaattggaaagactcctggcttccaccaggttatgca
ggttcgagtcctgtcgggcgctc

>JN049605.1 Mycobacterium virus Erich, complete genome

1-tRNA-Asn(gtt)[5403,5475]

tgacgtgtagctcaatggcagagcacccggctgtaaccggacggttgaa
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1-2tRNA-Trp(cca)[5480,5553]

gcgctcctagctcaattggtagagcagcggctctcaaagccgcgagttcc
aggttcgagtcctggggagcgtgc

1-3tRNA-Gln(ctg)[5595,5667]

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>JN083852.1 Mycobacterium virus Benedict, complete genome

1-tRNA-Trp(cca)[4137,4210]

gggtcagtagctcaactggtagagcagcggctctcaaagccgcgcttg
aggttcgagccctccctggcctgc

>JN083853.1 Mycobacterium phage Airmid, complete genome

1-tRNA-Trp(cca)[4135,4208]

gggtcagtagctcaatcggtagagcagcggctctcaaagccgcgcttg
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>JN185608.1 Mycobacterium phage JAWS, complete genome

1-tRNA-Trp(cca)[1003,1076]

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>JN391441.1 Mycobacterium phage Elph10, complete genome

1-tRNA-Arg(cct)[61875,61958]

atggcccgtagctcagtcaggtagagcagccttggcccttgcgggcttgg
ttcgtccccgggtcaaatccggcgggccttgcc

1-2tRNA-Gly(tcc)[61961,62033]

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ggttcgagtcctgtcgggcgctc

>JN408459.1 Mycobacterium virus Cuco, complete genome

1-tRNA-Trp(cca)[4309,4382]

gggtcagtagctcaattggtagagcagcggctctcaaagccgcgagttg
aggttcgagtcctccctggcccg

>JX262376.1 Streptomyces phage phiELB20, complete genome

1-tRNA-Phe(gaa)[1083,1156]

gggccggtagctcagttggaagagcggcgagtgaaatccgcaggtcgc
aggttcgagtcctgcctggccac

>JN412590.1 Mycobacterium phage Eureka, complete genome

1-tRNA-Arg(cct)[63002,63085]

atggcccgtagctcagtcaggtagagcagccttggcccttgcgggcttgg
ttcgtccccgggtcaaatccggcgggccttgcc

1-2tRNA-Gly(tcc)[63088,63160]

gcgccccgtggtcgaattggaaagactcctggcttccaccaggttatgca
ggttcgagtcctgtcgggcgctc

>KR997933.1 Mycobacterium phage Madruga, complete genome
1-tRNA-Gln(ttg)[56447,56519]
tgccatcatggtgtaattggcagcacgagtggtttgtccacttagttca
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>KU716094.1 Mycobacterium phage Eidsmoe, complete genome
1-tRNA-Glu(ctc)[5936,6008]
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>JN699019.1 Mycobacterium virus Jeffabunny, complete genome
1-tRNA-Asn(gtt)[5402,5474]
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1-2tRNA-Trp(cca)[5479,5552]
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1-3tRNA-Gln(ctg)[5594,5666]
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>JN831654.1 Mycobacterium virus Saintus, complete genome
1-tRNA-Lys(ctt)[4070,4143]
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>JN600672.1 Mycobacterium phage Fezzik, complete genome
1-tRNA-Leu(caa)[34724,34807]
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1-2tRNA-Leu(caa)[61695,61769]
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tgggttcgagtcaccacgggactac
1-3tRNA-Thr(cgt)[61770,61844]
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1-4tRNA-Lys(ctt)[62131,62204]
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1-5tRNA-Tyr(gta)[62215,62298]
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tcggcttcgggggttcgattccctcccgcgctac
1-6tRNA-Trp(cca)[62308,62381]
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ccgttcgagtcggggccgggttc
1-7tRNA-Leu(tag)[62382,62456]
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1-8tRNA-His(gtg)[62457,62526]
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 >JQ740788.1 Lactococcus Phage ASCC273, complete genome
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 >JX042578.1 Mycobacteriophage EITiger69, complete genome
 1-tRNA-Trp(cca)[4135,4208]
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 >JX163858.1 Caulobacter phage phiCbK, complete genome
 1-tRNA-Met(cat)c[103504,103588]
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 1-4tRNA-Gly(tcc)[105106,105179]
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 1-5tRNA-Cys(gca)[105759,105847]
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1-11tRNA-Val(cac)c[155757,155832]
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1-12tRNA-Ile(gat)c[155866,155940]
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1-13tRNA-Ile(gat)c[155948,156023]
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1-14tRNA-Val(gac)c[156026,156101]
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1-15tRNA-Phe(gaa)c[156107,156182]
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1-16tRNA-Ser(gga)c[156876,156963]
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1-17tRNA-Ser(cga)c[156968,157055]
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1-18tRNA-Ala(tgc)c[157060,157130]
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cgagtcccacatactccacca
1-19tRNA-Leu(gag)c[157214,157302]
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1-20tRNA-Leu(caa)c[157308,157392]
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1-21tRNA-Leu(cag)c[157400,157483]
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1-22tRNA-Lys(ttt)c[157490,157580]
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1-24tRNA-Pro(ggg)c[157864,157938]
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1-25tRNA-Pro(cgg)c[157946,158021]

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 1–27tRNA–Glu(ttc)[159558,159635]
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 1–29tRNA–Gly(gcc)[159872,159946]
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 1–30tRNA–Trp(cca)[159952,160027]
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 >JX307704.1 Mycobacterium virus Goose, complete genome
 1–1tRNA–Trp(cca)[3783,3858]
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 >JX411619.1 Mycobacterium virus Rebeuca, complete genome
 1–1tRNA–Trp(cca)[3968,4043]
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 >JX889246.1 Streptomyces phage phiCAM, complete genome
 1–1tRNA–Arg(cct)[45921,46003]
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 >KC333879.1 Enterobacteria phage phiJLA23, complete genome
 1–1tRNA–Arg(cct)[22052,22127]
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 >KT591491.1 Mycobacterium phage Bricole, complete genome
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 1–3tRNA–Asn(gtt)[55466,55537]
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1-6tRNA-Gln(ctg)[57001,57073]
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1-7tRNA-Pro(tgg)[57077,57150]
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1-8tRNA-Ser(gct)[57446,57527]
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1-10tRNA-Met(cat)[57800,57871]
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1-11tRNA-Arg(acg)[58151,58225]
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1-14tRNA-Leu(cag)[58640,58714]
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1-15tRNA-Lys(ctt)[59734,59807]
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1-16tRNA-Gly(tcc)[59930,60005]
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1-17tRNA-Val(tac)[60010,60082]
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1-18tRNA-Thr(agt)[60086,60158]
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ggttcgattccctgtccggctc

1-19tRNA-Asp(gtc)[60273,60348]
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gggttcaaatcccgttggcgggacca
1-20tRNA-Glu(ctc)[60350,60421]
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>KC661276.1 Mycobacterium phage Winky, complete genome

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1-2tRNA-Pro(tgg)[63639,63713]
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1-3tRNA-Trp(cca)[63834,63907]
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tggttcgagtccacccgttggagc
1-12tRNA-Lys(ttt)[66940,67014]
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>KC691254.1 Mycobacterium phage Breezona, complete genome

1-tRNA-Thr(cgt)[63338,63411]
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1-2tRNA-Pro(tgg)[63639,63713]
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caggttcaaatcctgtagccagac

1-3tRNA-Trp(cca)[63834,63907]
agctcggtagctcaattggtagagcagcggtctcaaagccgccggttcc
ccgttcgagtcggggtcgggttgc

1-4tRNA-Tyr(gta)[64018,64100]
tgggtggttgggcttgttgggtggccacctgactgtaaatcaggcggtt
cggcaccgggggttcgattccctcccaccacac

1-5tRNA-Leu(tag)[64514,64588]
ggccctctagcccaattggcagaggcacaggttttaggtacctgtcagtg
cgagttcgagtctcggggggccac

1-6tRNA-His(gtg)[64589,64658]
gcttagtagcctagtggtaaggcagccggttgatccggtgaacctgag
ttcgattctcagctaaagcc

1-7tRNA-Gln(ctg)[64663,64737]
tgaccggtagcacaaactgtagttgcgccgctctggacgcggaggttg
ttggttcgatcccagctcggtcagc

1-8tRNA-Gly(tcc)[64853,64927]
gtgctagtaaccatgttggctgggtgcctgacttccactcaggatttcg
cgggttcgattcctgtctagcacac

1-9tRNA-Lys(ctt)[64970,65047]
tgccctgtagctcagttggtagagctgccgactcttaacggtaggtca
caggttcaagtctgtacgggtaccca

1-10tRNA-Cys(gca)[66237,66310]
gccgtcatggctgagtggttaggcctcgactgcaaatccggcttatccc
agttcgattctgggtggcggctcc

1-11tRNA-Asn(gtt)[66672,66745]
tcctccgtagctcaattggcagagcgcgactgttaatcgctggttgg
tggttcgagtcacccgttggagc

1-12tRNA-Lys(ttt)[66939,67013]
gccctatagctcagttggtagagcaggagacttttaattctcgggtcct
aggttcgatccctagtgggggcacc

>KT373978.1 Mycobacterium phage Ukulele, complete genome

1-tRNA-Arg(cct)[62194,62277]
atggcccgtagctcagtcaggtagagcagccttcccccttcggggcttgg
ttctccccgggtcgaatccggcgggccttgcc

1-2tRNA-Gly(tcc)[62280,62352]
gcgcccgtggtcgaattggaaagactcctggcttccaccaggttatgca
ggttcgagtcctgtcgggcgctc

>KF017927.1 Mycobacterium phage Odin, complete genome

1-tRNA-Asn(gtt)[4130,4205]
tgacgtgtagctcaattggcagagcaccggctgtaaccggacggtga
aggttcgagtccttccacgtcagcca

1-2tRNA-Lys(ctt)[4242,4315]
ggggcagtagctcagtcggtagagctcggactcttaatccgtaggtcgc
aggttcgalccctgcctgccccac

>KF493883.1 Mycobacterium phage Mosby, complete genome
1-tRNA-Arg(cct)[62199,62282]
atggcccgtagctcagtcaggtagagcagccttgccttgcgggcttgg
ttcgtccccgggtcaaatccggcgggccttgcc

1-2tRNA-Gly(tcc)[62285,62357]
gcgcccgtggtcgaattggaaagactcctggcttccaccaggttatga
ggttcgagtcctgtcgggcgctc

>KX375815.1 Mycobacterium phage ToneTone, complete genome
1-tRNA-Asn(gtt)[5312,5384]
tgacgtgtagctcaatggcagagcaccggctgtaaccggacggttgaa
ggttcgagtccttccatgtcagc

1-2tRNA-Trp(cca)[5389,5462]
gcgctcctagctcaattggtagagcagcggctcctcaaagccgcgagttcc
aggttcgagtcctggggagcgtgc

1-3tRNA-Gln(ctg)[5504,5576]
tcctgttcgtctaatacggtgaagacaccggctctggacccggcaatcga
ggttcgagtccttgatggggagc

>KF771236.1 Escherichia phage bV_EcoS_AHP24, complete genome
1-tRNA-Arg(cct)[46138,46213]
gttctgctggcgtaacaggataacgcagagacctctaagtctcagttgc
tggttcgagtcagcgcagaacgccca

>KJ094032.2 Enterococcus phage VD13, complete genome
1-tRNA-Trp(cca)[30832,30905]
tgagttgttagtgaatggttagcacaacagtcctcaaaactgtagaga
gggttcgattccttcactgcttgt

>KJ567045.1 Mycobacterium phage Emerson, complete genome
1-tRNA-Trp(cca)[1009,1082]
gggtgtgtagctcaatcggtagagcagcggctcctcaaagccgccggttgc
acgttcgagtcgtgccgcgccgc

>KT361920.1 Mycobacterium phage Slarp, complete genome
1-tRNA-Arg(gcg)[14207,14300]
tcggcgcgctgcgcaggagatgggcagcagcgttcgcggcaccctgtcg
aacctcaaggcggtctattcgcggttcggtgccgagctgtcggg

1-2tRNA-Lys(ttt)[30855,30930]
gccccgtagctcaatcggaagagcagccggctttaaccggcggttacg
gagatcgaaactccggcgggcacca

>KM233455.1 Mycobacterium phage Farber, complete genome
1-tRNA-Asn(gtt)[3833,3908]

tgatctgtagctcaatcggcagagcacccggctgtaaccgggacgttgg
 aggttcgagtcctcccagatcagcca
 1-2tRNA-Trp(cca)[3949,4023]
 aggcacgtagctcaattggtagagcagcggctcctccaaagccgccggctg
 caggttcgagtcctgccgtgtctgc
 1-3tRNA-Leu(cag)[4058,4132]
 ggctcggtaggcaaacaggcaaagccgcctgtctcaggaacaggtgcgtg
 agggttcgactccctcccagctac
 >KX458237.1 Mycobacterium phage Penny1, complete genome
 1-1tRNA-Asn(gtt)[3838,3913]
 tgatctgtagctcaactggcagagcacccggctgtaaccgggtcgttgg
 aggttcgagtcctcccagatcagcca
 1-2tRNA-Trp(cca)[3954,4028]
 aggcacgtagctcaattggtagagcagcggctcctccaaagccgccggctg
 caggttcgagtcctgccgtgtctgc
 1-3tRNA-Leu(cag)[4063,4137]
 ggctcggtaggcaaataaggcaaagccgcctgtctcaggaacaggtgcgtg
 agggttcgactccctcccagctac
 >KM592966.1 Mycobacterium phage QuinnKiro, complete genome
 1-1tRNA-Asn(gtt)[3984,4059]
 tgatctgtagctcaatcggcagagcacccggctgtaaccgggacgttgg
 aggttcgagtcctcccagatcagcca
 1-2tRNA-Trp(cca)[4100,4173]
 aggcgcgtagctcaattggtagagcagcggctcctccaaagccgctggctgc
 aggttcgagtcctgccgcgtctgc
 >KM979355.1 Enterobacteria phage DT571/2, complete genome
 1-1tRNA-Gly(tcc)c[24894,24968]
 gcgtgattagttcagcggctagaataactggcttccaaccagtagacacg
 agttcgactctcgtatcccgacca
 1-2tRNA-Gln(ttg)c[24980,25057]
 tggggattagcttagcttggcctaaagctacggcatttgaagtcgagatc
 attggttcaaatccaatatcccctgcc
 1-3tRNA-Gln(ctg)c[25064,25139]
 agaacctgagccaagtcggttaaggctggggtctctgaaacctgatcag
 tggttcaaatccactaccttctgcc
 1-4tRNA-Arg(acg)c[25557,25631]
 gcgtccttatttcaatggaagaatgtaaagccacgaactttacgattgg
 ggttcgattccctgaggatgcacca
 1-5tRNA-His(gtg)c[25638,25714]
 tgggtatatcataattggtaatgatcctgatttgaatcaggcctatg
 tggattcgaattccactagccaccca
 1-6tRNA-Leu(tag)c[26249,26325]
 gcgtgattgatggaattggcatataccgtccctagaagtcgggttttg
 agggttcgaatccctgtcacgcacca

1-7tRNA-Ala(tgc)c[26331,26404]
ggggatatagtttaatggtagaacatctgctttgcacgcagaagacgagg
gttcaactccctctttctccacca
1-8tRNA-Met(cat)c[28310,28384]
gggtcggtagcttaaagtaaagcggtaggcctcataagctaacgagtagg
agttagattctcctccgaccacca
1-9tRNA-Ser(gct)c[28391,28479]
ggaagaatagcataacggtattgcagcagattgctaactctgcggttga
aatatagccttgggttcgattcccgcttctccgcca
1-10tRNA-Arg(tct)c[30213,30287]
cggggtgtagtctaaggagaggcaggagcttctaattcctttatgca
ggttcgaatcctgtcacctcgcca
1-11tRNA-Ser(act)c[30788,30861]
tgccgatctagtataaacggtattatcaagccgtaactggtggaagatgt
aggttcgaatcctacgatcggtaa

>KP017310.1 Mycobacterium phage Phoxy, complete genome

1-1tRNA-Asn(gtt)[3922,3997]
tgatctgtagctcaatcggcagagcacccggctgtaaccgggacgttgg
aggttcgagtcctccagatcagcca
1-2tRNA-Trp(cca)[4038,4112]
aggcacgtagctcaattggtcagagcagcggctcctcaaagccgaggctg
caggttcgagtcctgccgtgtctgc
1-3tRNA-Leu(cag)[4147,4221]
ggctcggtaggcaaacaggcaaagccgcctgtctcaggaacagggtgcgtg
agggttcgactccctcccgagctac

>KP017311.1 Mycobacterium phage Spike509, complete genome

1-1tRNA-Asn(gtt)[3922,3997]
tgatctgtagctcaatcggcagagcacccggctgtaaccgggacgttgg
aggttcgagtcctccagatcagcca
1-2tRNA-Trp(cca)[4038,4112]
aggcacgtagctcaattggtcagagcagcggctcctcaaagccgaggctg
caggttcgagtcctgccgtgtctgc
1-3tRNA-Leu(cag)[4147,4221]
ggctcggtaggcaaacaggcaaagccgcctgtctcaggaacagggtgcgtg
agggttcgactccctcccgagctac

>KP027195.1 Mycobacterium phage Cosmo, complete genome

1-1tRNA-Trp(cca)[58394,58465]
gcgctgatagttagtggaacacggcaagctccaaccttgctatctggg
gttcaagtctcatcagcgtgc
1-3tRNA-Pro(tgg)[59446,59517]
cagggtgtggtgtagtggtcgcattggccttgaagcaggcggacgca
gttcaattctgcgcaccctgac
1-4tRNA-Phe(gaa)[59841,59914]
cggtcgttagtgaagatggagatcacgggcctgaaaaccccgagacgc

agggttcgattcctgcacgaccggc
1-5tRNA-Met(cat)[59923,59997]
ggcagagtagagaaacggatatctcgcaaggctcataaccttgaaaaagg
cgggttcgactccccctctgctcc
1-6tRNA-Tyr(gta)[60111,60193]
gcgtcagacgcacattgggtagtcagcggctgtaaaaccgtcgccttc
gggcattgggggttcaagtcctcctgacgcac
1-7tRNA-Ala(tgc)[60266,60337]
gggggtatcgataatgggtattacgcctgccttgcaagcaggtcattggg
gttcaattccccatacctccac
1-8tRNA-Val(tac)[60392,60463]
gcccgttagctcaatgggagagccaccggcctacacccggtagacgaga
gttcaattctttcagcgggtac
1-9tRNA-Leu(tag)[60534,60608]
ggctcgttatgcaaaccggcaaagcagcctgccttagaagcaggtgtttc
agggttcgactccctggcgagctac
1-10tRNA-Leu(caa)[60666,60739]
ggtcgtgtaggcaaattggcaaagcccaagctcaaacctgggtgttgt
gggttcaactcccaccgcgactac
1-11tRNA-Gly(tcc)[60835,60908]
gagggtgaagtgttaacggtatgcacggctgtctccaacagcaagagc
gagttcgattctcgtcacccccac
1-12tRNA-Gly(gcc)[60984,61055]
gtggacgtgatgtaatggtagcctccccgcttgccaagcagggtgtgcgg
gttcaattcccgctcgtccgcac
1-13tRNA-Gln(ctg)[61244,61316]
tgcctatggtgtaattgacagcacgggtggctctgaacctatgctga
ggtttgaatccttggggcagc
1-14tRNA-Asp(gtc)[61534,61606]
cccgcatagtgtagtggttaacacgccagctgtcacgctggtagcgag
ggttcaattccctctggcggggc
1-15tRNA-Thr(agt)[61613,61687]
ggctttgtagctcaacggttttagagcagctgtctagtaaagcggacc
agggttcgactccctgcttagcctc
1-16tRNA-Lys(ctt)[61860,61934]
gcctcgctagttaatggccaaaaccgagactcttaatctgtcagactc
tgggttcgaatcccaggcggggcac
1-17tRNA-Cys(gca)[61941,62016]
gccggtgtgacagaacgatttatgtggcagctgcaaaactgacctaaagc
gggtttgactcccgccaccggtcca
1-18tRNA-Ile(gat)[62019,62091]
tggcccgtagttcaacggttaagaacggatcgctgataacgatcagacaag
agttcaactctctcgggccaac
1-19tRNA-Arg(acg)[62198,62271]

gcccgtgtagctcagtggatagagccgtggcctacgaagccatgggccgg
gggttcgaatccctccacgggtac

1-20tRNA-Ser(gct)[62297,62379]

ggagagtgatgaacaggggtggtgcactcgcctgctaagcgaatgtgtct
gcaaggatcacgttcaactcgtctctccgc

1-21tRNA-His(gtg)[62381,62454]

gtgtctgtagctcaatggtagacctcccgtgtgaccgggacgacgacg
ggtcagaaccgtccagacacccca

1-22tRNA-Glu(ttc)[63073,63145]

ggttccgtggtgtaacggttagcacctgggtcttcaagcccaaggtcag
ggttcaactccctgcggaactgc

1-23tRNA-Glu(ctc)[63150,63221]

ggcccactggtgtaatgggaacacgccaccccctcaaggaggagtcaggg
gttcaattcccctgtgggctac

1-24tRNA-Asn(gtt)[63227,63298]

tccggtatcgttcaaaggcaggacaccaagctgtaacttggtatgttg
gttcgatcccagctaccggagc

>KR422353.1 Escherichia phage APCEc03, complete genome

1-1tRNA-Ser(gct)[614,702]

ggaagaatagcataacgtattgcagcagattgctaattctgcggttga
aatatagccttgtgggttcgattcccacttctccgcca

1-2tRNA-Ser(tga)[1580,1669]

ggaaggtagggcgtagtggtacgcaactagcttgaaaactagcccgtg
tagtgatacgggtgatggttcgactccattaccttctcca

1-3tRNA-His(gtg)[2260,2336]

gtggctatatcataattggttaatgatcctgattgtgaatcaggcctatg
tggattcgaattccactagccacccca

1-4tRNA-Gln(ctg)[2526,2601]

agaaggttagccaagtcggttaaggctgggtctctgaaatcctgatcag
tggttcaaatccactaccttctgcca

1-5tRNA-Gln(ttg)[2607,2684]

ttgggattagcttagcttggcctaaagcttcggccttgaagtcgagatc
attggttcaaatccaatatcccctgcca

1-6tRNA-Thr(tgt)[3201,3287]

gctgggttggcagaatggttgaatgcacctgatttgaatcaggaggagt
aatcccgttcaggttcgaatcctgtgccacgacca

1-7tRNA-Ile(gat)[4039,4115]

gcttcggtagcttagcgatctaaagcactcggctgataaccgagagatcg
ggggtttaaaccctcccggagtacca

1-8tRNA-Met(cat)[4212,4287]

agttagttggcagagtggttatgcacctcctcatacggagcgactacag
tggttcaaatccactactaactacca

1-9tRNA-Arg(tct)[102659,102733]

cggggtgtagtctaaggagaggcaggagtcttctaattcctttatgca

gggtcgaatcctgtcacctcgcca
 >JX015524.1 Mycobacterium virus Astro, complete genome
 1-tRNA-Trp(cca)[4055,4128]
 gggtcagtagctcaattggtagagcagcggctcctccaaagccgctcgttgg
 gggttcgagtcctcctggcctgc
 >KT020852.1 Mycobacterium phage NoSleep, complete genome
 1-tRNA-Arg(cct)[62056,62139]
 atgcccgtagctcagtcaggtagagcagccttcccccttgcgggcttgg
 ttcgtccccgggtcaaatccgggcgggccttggc
 1-2tRNA-Gly(tcc)[62142,62214]
 gcgcccgtggtcgaattggaaagactcctggcttccaccaggttatgca
 gggttcgagtcctgtcgggcgctc
 >KT186229.1 Streptomyces phage Verse, complete genome
 1-tRNA-Arg(cct)c[45153,45235]
 cacctgctgggacgggttcaagaccacctcctgagtggtcagcgtgagcg
 gcacacaccccggttcgagtcggggcagcac
 >KT070867.1 Bacillus phage PBC2, complete genome
 1-tRNA-Arg(tct)c[148845,148918]
 tgccttttggtaaatggatatcatgactggtttctaccagtagttag
 gggttcgaatactctagaggcgct
 1-2tRNA-Arg(acg)c[148922,148995]
 taccgatatagtgaaatggatatcacgacagactacgaatctgttagtcc
 aagttcgaatcttggtatcggtgt
 1-3tRNA-Gly(tcc)c[149000,149074]
 gtggtattagtagtagtctggtctagcaccctgccttccaagcaggaaac
 atcgggtcgaatccgataaccaca
 1-4tRNA-Ser(gct)c[149083,149171]
 ggagggttactcaagcgggaagaggactgttgctaaacagttaggcg
 cagaaatgtccacaggagttcgaatctcctaccctcct
 1-5tRNA-Ser(tga)c[149178,149264]
 tggatggttactctaattggaagagacctgccttgaaagcagacgtagg
 gtaaaaccgatgggggttcaagtcctcaccatccgt
 1-6tRNA-Thr(tgt)c[149365,149435]
 gcccgattagtttaatggaaaaacgaggaactgttaattcttagttatca
 gttcgattctggtattgggct
 1-7tRNA-Ala(tgc)c[149440,149514]
 gggggattagtttaatcggtaaaacagtggctttgcacgtcacagaaaag
 agttcgaatctctatttccacca
 1-8tRNA-Pro(tgg)c[149694,149765]
 gtggatatagggaatggttagcctactccttttgaaggagatgttgca
 agttcgagtcctgctatccgca
 1-9tRNA-Lys(ttt)c[149771,149843]
 ggggtattaactcaatggtagagtaatcggttttaaccgatatgctaga
 gggttcgagtcctctatgaccac

1-10tRNA-Ile(gat)c[149857,149931]
 tgactagtagctcaactggtagagcatccgattgataatcggaagggtg
 ttggttcgagtgccaaccttaattgt
 1-11tRNA-Leu(tag)c[149979,150053]
 tggcggagtaatccaacggcagagatagtggttttagaagccatccagtg
 agagttcgaatctctccttcgctat
 1-12tRNA-Tyr(gta)c[150063,150142]
 gggcgtgcattcattggcgagataagctgactgtaaatcagtggcgaaag
 ctgtgttagttcgaatctaaccatgcccac
 1-13tRNA-Glu(ttc)c[150296,150370]
 gtcctattggacaaatcggtttaagtcgctaccctttcaaggtagagatt
 gccagttcgaatctggtatggagta
 1-14tRNA-Cys(gca)c[150383,150458]
 ggtcgagttcctagatggctctggggtctagctgcaaaactaggttttga
 gggttcgaatcccttcttggttcca
 1-15tRNA-Leu(taa)c[150465,150549]
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 1-16tRNA-Gln(ttg)c[150681,150759]
 ttgcggtgtggacaaactggtaaagtcgcctgcctttgaagcaggagatg
 ttggaggttcgaagccttcaccgcagtc
 1-17tRNA-Gly(gcc)c[150864,150934]
 gtgggattagtttagaggtagaattctgattgccattcagaaggaaagg
 gttcgattcccttatctcaca
 1-18tRNA-Asp(gtc)c[151628,151702]
 gggttattagtatatgggttaacacgcttgctgtcacgcaagagaaatg
 agttcaagtcctgtatagaccgcca
 1-19tRNA-Asn(gtt)c[151707,151781]
 tgcacctatagctctaattggtagagcagagagctgtaactctttggttg
 gtggttcgaatccatctaggtgcgt

>KT345706.1 *Vibrio* phage vB_VorS-PVo5, complete genome

1-1tRNA-Val(tac)c[244,319]
 actcccttagctcagtgtagagcacctcccttacaaggaggggggtcgt
 tggttcgagtgccaacaggagtagcca
 1-2tRNA-Gln(ttg)c[537,613]
 aggggattagcttagctggccgaaagcaacggactttgaatccgtgacca
 caggttcgaatcctgtatccccgcca
 1-3tRNA-Thr(tgt)c[823,898]
 gcttcttagctcagttgggagagcagctcactgtaatgagcaggtcgt
 ccgttcgaatcggaagagcacca
 1-4tRNA-Gly(tcc)c[971,1057]
 gcgtactgaagactgagcggtcggtcactagcctccaagctagcgccct
 taatcgggatagggttcgactccctctgtacgtcca
 1-5tRNA-Ser(tga)c[1065,1158]

ggaaggccaatccgatggttggcgacggaactggtcttgaaaaccagcga
gtgctaatagcgccttgagagttcgatcctctccttccgcca

1-6tRNA-Leu(tag)c[1165,1250]

gcaggagtggtgtaattggtagccgcgtgtgccttagaagca.atgtcct
agtgcgtgagggttcaagtcctcctcctgtacca

1-7tRNA-Pro(tgg)c[1361,1439]

cggggtgtaatgtcagtcgtcagacggctcgcttggatgcgagaggt
cgtaggttcgaatcctacccccgacca

1-8tRNA-Asp(gtc)c[1446,1523]

gcggctgtgtgcgagatggttaggcaacctcctgtcacggaggagtag
gtgggttcaagtcctacggtcgcgcca

1-9tRNA-Asn(gtt)c[1529,1604]

gggggattaactcagtggtcagagtggtgcctgtaagcagctggtcat
aggttcaaatcctatatcccccgcca

1-10tRNA-Tyr(gta)c[1611,1700]

ggttgaatgcgacgaattggttaagtcagcggattgtaaatccgtagccac
cgaaaggggcatctaggttcaagtcctagttcaaccacca

1-11tRNA-Met(cat)c[1794,1870]

agaggcttggctgagctggttatagcactcctcatgcggagtaagacg
ggggttcgaatccctcagcctctacca

1-12tRNA-Ala(tgc)c[1958,2033]

ggggaattagctcagttgggagagcagggtcttgcaaggctcaggtcat
cgggtcgagtcgcatatttccacca

1-13tRNA-Glu(ttc)c[2040,2115]

acaccggaagacagatggattggtcgtcaccccttcaagtgagtttgc
gggttcgagtcctcgtccggtgtacca

1-14tRNA-Lys(ttt)c[2117,2193]

gcgctgtagctcagttggttagagcatctgacttttaacaggtggtcg
aaggttcgagtccttctacgcgacca

1-15tRNA-Met(cat)c[2200,2276]

tgcgagaatggagaaatggcgtcttgcgagttcataagctcgataacgt
ggggttcgaatcccccatctcgcacca

>KT151957.1 Brevibacillus phage SecTim467, complete genome

1-1tRNA-Asn(gtt)c[7178,7252]

agggtagtagttcaatggtagaacgacgcactgttaatgcgtatgttga
ggttcgagtcctgccttccctgcca

1-2tRNA-Pro(tgg)c[7356,7432]

cagggttagttcagttcgggagaacaccgcatttgggatgcggaggtcg
caggttcaagccctgccactctgacca

1-3tRNA-Met(cat)c[7434,7507]

gggtcttttagctcgaaggccgagcaggcggctcatgaccgctaggtgtgg
gttcgattcccacaagaccacca

1-4tRNA-Cys(gca)c[7546,7618]

gtgtctgtccctagtcggtctagggtacggtctgcaaaaccgtattacgt

gggttcaagtcaccagatgct
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 ggatgagtatgaagaggttaagctgacagagtgtaaatctgtcgctga
 tggcttcgtaggttcaactcctacctacccac
 1–6tRNA–His(gtg)c[8486,8574]
 gtgtacgtggtggaatggtagacacgaagattgtggtcttgtggggc
 gcaagccccgtgcaggttcaagtcctgtcgtacacccca
 >KT326767.1 Mycobacterium phage Texage, complete genome
 1–1tRNA–Asn(gtt)[3984,4059]
 tgatctgtagtcaatcggcagagcaccggctgttaaccgggacgttgg
 aggttcgagtcctccagatcagcca
 1–2tRNA–Trp(cca)[4100,4173]
 aggcgcgtagctcaattggtagagcagcggctctcaaagccgctggctgc
 aggttcgagtcctgccgctctgc
 >KT372003.1 Mycobacterium phage Lumos, complete genome
 1–1tRNA–Tyr(gta)[39561,39644]
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 tcggcttcgggggttcaattccctctgccacac
 1–2tRNA–Thr(cgt)[62789,62861]
 gccaccttagctcagcggtagagcagccttcgtaacgcgcaggtcaac
 ggttcgattccgttaggtggctc
 1–3tRNA–Pro(tgg)[63214,63286]
 cggaaacaggtgtaatggttgcattgaggcgttggatcgccggggttcgg
 ggttcgactccctggttccgac
 1–4tRNA–Trp(cca)[63629,63702]
 agctcggtagctcaactggtagagcagtggtctcaaagccaccggttgc
 aggttcgactcctgtccgggtgc
 1–5tRNA–Leu(tag)[63703,63777]
 ggttcgtaggcaaactggcaaagccgtctgacttagaatcaggtgttg
 ggagttcgactctccccggaactac
 1–6tRNA–His(gtg)[63778,63847]
 gctaagtagcttaatggtaaagccccggttgggtccgggcgatcacgg
 ttcaactccgtgcttaagcc
 1–7tRNA–Gln(ctg)[64127,64201]
 tgcccgctagcacaattggcagttgcgctcgcgtctgaacgcagaggttc
 caggttcgactcctgggtgggcagc
 1–8tRNA–Lys(ctt)[64211,64284]
 gcgtcggttagctcagttggtagagcaggcactctaatgctcgggtcgg
 gggttcaagtccctcacggcgac
 1–9tRNA–Pyl(cta)[65427,65519]
 tgctcaaatgggtaggccgttccctgtcatctaaaggcaggatgcctc
 gctgttaacgaggtcacgcaggttcgacctgctgggggagc
 1–10tRNA–Lys(ttt)c[65524,65597]
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gggttcgatccccggcgcggtac
 >KU255188.1 Mycobacterium phage JenCasNa, complete genome
 1-tRNA-Asn(gtt)[3838,3913]
 tgatctgtagctcaactggcagagcacccggctgtaaccgggtcgttgg
 aggttcgagtcctcccagatcagcca
 1-2tRNA-Trp(cca)[3954,4028]
 aggcacgtagctcaattggcagagcagcggctcctccaaagccgctg
 caggttcgagtcctgccgtgtctgc
 1-3tRNA-Leu(cag)[4063,4137]
 ggctcggtaggcaaacaggcaagccgctgtctcaggaacaggtgcgtg
 agggttcgactccctcccagctac
 >KU234099.1 Mycobacterium phage MkaliMitinis3, complete genome
 1-tRNA-Thr(cgt)[63152,63225]
 gccaccttagctcagttggtagagcagcgccttcgtaacgcgcaggtcag
 cggttcgattccgctaggtggctc
 1-2tRNA-Pro(tgg)[63687,63760]
 cggcccaaggtgaatggcttgcagagcgttggatcgccggggttcc
 ctgttcgactcggggtggccgac
 1-3tRNA-Trp(cca)[63831,63904]
 agcgaattggtgaatcggtagcatagcggcctccaaaccgctgtag
 aggttcgagtcctctattcgttgc
 1-4tRNA-Leu(tag)[64277,64351]
 gtcctcgtaggcaactggcaagccgctgatttaggtcaggtgtttc
 ggggttcgactccccggtggagcac
 1-5tRNA-His(gtg)[64351,64423]
 cgcgaggtagcttaagtagtaaagccccgactgtgactcgggtgattcg
 ggtgcaagtcccggcctgtcgcc
 1-6tRNA-Tyr(gta)[64426,64508]
 gtggcggtgggctgttggttggccgcctgactgtaaatcaggtgtt
 cggcatcgggggttcgattccctctcgccacac
 1-7tRNA-Gln(ctg)[64516,64591]
 tgaccgctagcacaattaggcagttgcgccggaatctgactccggaggt
 ccaggttcgattcctgggtggtcagc
 1-8tRNA-Gly(tcc)[64707,64781]
 gtgctagtaacctatgttggtgggtgccactctccaaagtggattcg
 cgcgttcgattcgctctagcacac
 1-9tRNA-Lys(ctt)[64816,64891]
 gcctcgtagctcagttggtagagcagccgactctaatcgcggtcac
 aggttcaagtctgtacgggtacca
 1-10tRNA-Ser(tga)[64893,64982]
 ggagagtaatgcagcgggggtggccccgcaccgcttgaaagccgggta
 gccgtaatggagcttggggtcgatccctctgctctccgc
 1-11tRNA-Cys(gca)[66074,66146]
 gccgttgtccgagtggttagtgccaggctgcaaaacttggttagtcgc

gttcgattcgcggggacggctcc
1-12tRNA-Asn(gtt)[66299,66372]
tcctccgtagctcaattggcagagcgcgcgactgtaatcgctgggttg
tggttcgagtcacccgttggagc
1-13tRNA-Lys(ttt)c[66566,66640]
gccctatagctcagttggtagacaggagacttttaatcttcgggtcct
aggttcgatccctagtgggggcacc
>KT626047.1 Mycobacterium phage Dynamix, complete genome
1-1tRNA-Trp(cca)[1897,1972]
tggtcttagctcaattggtagacagcggctcctcaaaaccgccggttg
caggttcgagtcctgcagagtcagcc
>KU716095.1 Mycobacterium phage Myxus, complete genome
1-1tRNA-Glu(ctc)[5906,5978]
gttcggttgagtagcggcaactcatctgactctcactcagaagatcgcg
ggttcaatccgcacggactac
>KU935729.1 Mycobacterium phage SkinnyPete, complete genome
1-1tRNA-Thr(ggt)[26482,26559]
gatcctacggacgggaaaggacgtactacggtctgtaatccgcaggtc
ctggttcgagcccagctgggggcacca
>KU985095.1 Mycobacterium phage ChipMunk, complete genome
1-1tRNA-Gln(ctg)[4807,4881]
tccccgttcgtctaattggcaagacgccgggtctggccccgtaattga
ggttcgaatccttgatggggaacca
>KX241618.1 Xanthomonas phage Xoo-sp2, complete genome
1-1tRNA-Met(cat)[11369,11444]
cgcggggtagagcagctggcagctcgctgggttcataacccggaggtcgt
gggttcgagtcctccactcccgaacca
>KX160205.1 Lactococcus phage 49801, complete genome
1-1tRNA-Met(cat)[96,169]
ggttctttagctcagttggtcagagctaacggctcataaccgttcggtcg
ctggttcgagtcagcaagaacca
>KX160207.1 Lactococcus phage 53801, complete genome
1-1tRNA-Met(cat)[13752,13823]
acaggatgggtggcaaggcgtcacgctagtttcataagctagaatagaac
ggttcaatcccgttatcctgaa
>KX160208.1 Lactococcus phage 53802, complete genome
1-1tRNA-Met(cat)[15054,15125]
acaggatgggtggcaaggcgtcacgctagtttcataagctagaatagaac
ggttcaatcccgttatcctgaa
>KX160214.1 Lactococcus phage 98103, complete genome
1-1tRNA-Met(cat)[115,188]
ggttctttagctcagttggtcagagctaacggctcataaccgttcggtcg
ctggttcgagtcagcaagaacca
>KX557284.1 Gordonia phage Strosahl, complete genome

1-tRNA-Asn(gtt)[5110,5185]
tcgcctgtagctcaattggcagagcacccggctgtaaccggcggttga
aggttcgagtccttccaggcgagcca

1-2tRNA-Lys(ctt)[5187,5260]
gcatctgtagctgagtggttagctctgggctcttaaccggagacggag
gttcgattcctccagatgcacca

1-3tRNA-Gln(ctg)[5262,5334]
tccccattcgtccaattggtaggacaccggagtctggtccggagatcga
ggttcgaatcctcggtagggagc

>KX758539.1 Mycobacterium phage Jaan, complete genome

1-tRNA-Gln(ctg)[6191,6265]
tcccgctagcacaaactgtagctgcgctcggctctggaccgagaggttt
gaggttcgaatccttggccgggagc

>KX758538.1 Mycobacterium phage Kerberos, complete genome

1-tRNA-Asn(gtt)[4209,4283]
tgacgtgtagctcaatggcagagcatccggctgtaaccggacggttgaa
ggttcgagtccttctcgtcagcca

1-2tRNA-Trp(cca)[4324,4399]
gtacacgtagctcaattggtagagcagcggctcctcaaagccggttcc
aggttcgactcctggcgtgtatgcca

1-3tRNA-Gln(ctg)[4407,4479]
tccccgttcgtctaatacggaagacgcctggctctggaccaggaattga
ggttcgagtccttggcggggagc

1-4tRNA-Glu(ctc)[4514,4587]
ggtcccttggagtagcggataactcacctggccctcaccagaagatcgc
gggttcgaatcccgaggactac

1-5tRNA-Tyr(gta)[4591,4671]
cgcgagatacccaagcggcaacgggatctgactgtaaatcagacgcttcg
gcttcgaggttcgagtcctgctctcgcgac

>KX712237.1 Rhodococcus phage Partridge, complete genome

1-tRNA-Asn(gtt)[1496,1569]
tcacgtatagctcaatcggcagagcaacgcactgttaaggcgggggttga
aggttcgagtccttctacgtgagc

1-3tRNA-Trp(cca)[1761,1835]
gggcacgtagctcaattggatagagccccggctcctcaaagccggtggttg
ggggttcgagtcctccgggcctgc

>KX712236.1 Rhodococcus phage Yogi, complete genome

1-tRNA-Asn(gtt)[1503,1576]
tcacgtatagctcaatcggcagagcaacgcactgttaaggcgggggttga
aggttcgagtccttctacgtgagc

1-3tRNA-Trp(cca)[1702,1776]
gggcacgtagctcaattggatagagccccggctcctcaaagccggtggttg
ggggttcgagtcctccgggcctgc

>KX688047.1 Mycobacterium phage Marcoliusprime, complete genome

1-tRNA-Arg(gcg)[665,757]
caccgcttagcgaggttgcgcgccacgtcattgcgcccgacggcatcgtg
tcgacggcctggccgtcggtgtgtgcacgtgcgcggcgatgg

>KX685355.1 Mycobacterium phage Qobbit, complete genome
1-tRNA-Glu(ctc)[5936,6008]
ggtcggttgagtagcggcaactcatctgactctcactcagaagatcgcg
ggttcaaatcccgacggactac

>KX664447.1 Mycobacterium phage Phaeder, complete genome
1-tRNA-Glu(ctc)[5906,5978]
ggtcggttgagtagcggcaactcatctgactctcactcagaagatcgcg
ggttcaaatcccgacggactac

>KX664448.1 Mycobacterium phage Watson, complete genome
1-tRNA-Asn(gtt)[3832,3907]
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1-2tRNA-Trp(cca)[3948,4022]
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caggttcgagtcctgccgtgtctgc
1-3tRNA-Leu(cag)[4057,4131]
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agggttcgactccctcccagctac

>KX670828.1 Mycobacterium phage Todacoro, complete genome
1-tRNA-Asn(gtt)[3984,4059]
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aggttcgagtcctcccagatcagcca
1-2tRNA-Trp(cca)[4100,4173]
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aggttcgagtcctgccgctctgc

>KX640831.1 Mycobacterium phage Margo, complete genome
1-tRNA-Asn(gtt)[4009,4084]
tgatctgtagtcaatcggcagagcaccggctgttaaccgggacgttgg
aggttcgagtcctcccagatcagcca
1-2tRNA-Trp(cca)[4125,4198]
aggcgcgtagtcaattggtagagcagcggctcctcaaagccgctggctgc
aggttcgagtcctgccgctctgc

>KX621007.1 Mycobacterium phage Taquito, complete genome
1-tRNA-Lys(ttt)[31241,31316]
gccccgtagtcaatcggaagagcagccggtttaaccggcggttacg
gagatcgaaactccggcggggcacca

>KX619650.1 Mycobacterium phage Jerm, complete genome
1-tRNA-Gln(ctg)[4797,4871]
tccccgttctgaagcggcaagacaccgggtctggccccggcaatcga
ggttcgaatccttgatggggagcca

>KX611831.1 Mycobacterium phage Pharsalus, complete genome

1-tRNA-Arg(cct)[62609,62692]
atggcccgtagctcagtcaggtagagcagccttgccccttgcgggcttgg
ttcgtccccggttcaaatccggcgggccttgcc
1-2tRNA-Gly(tcc)[62695,62767]
gcgcccgtggctgaattggaaagactcctggcttccaccaggttatgca
ggttcgagtcctgtcgggcgctc

>KX580961.1 Mycobacterium phage Zakai, complete genome

1-tRNA-Thr(cgt)[63048,63121]
gccaccttagctcagttggtagagcagccccttcgtaacgggcaggtcag
cggttcgattccgctaggtggctc
1-2tRNA-Pro(tgg)[63349,63423]
ctggctgtagctcaactggtagagcgctggcttgggtgccaggggtg
caggttcaaatcctgtagccagac
1-3tRNA-Trp(cca)[63544,63617]
agctcggtagctcaattggtagagcagcggtctcaaagccgcccgttcc
ccgttcgagtcggggtcgggttgc
1-4tRNA-Tyr(gta)[63729,63811]
gtggtggttgggcttgttggttggcccacctgactgtaaatcaggcggtt
cggcaccgggggttcgattccctccccacac
1-5tRNA-Leu(tag)[64225,64299]
ggccctctagcccaattggcagaggcacaggttttaggtacctgtcagtg
cgagttcgagtctcgcgggggccac
1-6tRNA-His(gtg)[64300,64369]
gcttagtagcctagtggtaaggcagccggttgatccggtgaacctgag
ttcgattctcagctaaagcc
1-7tRNA-Gln(ctg)[64374,64448]
tgaccggtagcacaaactgtagttgcgccgcgctctggacgagggttg
ttggttcgatcccagctcggtcagc
1-8tRNA-Gly(tcc)[64564,64638]
gtgctagtaaccatgttggtgggtgcctgactccactcaggatttcg
cgggttcgattcctgtctagcacac
1-9tRNA-Lys(ctt)[64681,64758]
tgccctgtagctcagttggtagagctcccactcttaatcggtaggtca
caggttcaagtctgtacggggtacca
1-10tRNA-Cys(gca)[65948,66021]
gccgtcatggctgagtggttaggcgtcggactgcaaatccggttatccc
agttcgattctgggtggcggctcc
1-11tRNA-Asn(gtt)[66383,66456]
tcctccgtagctcaattggcagagcgcgcgactgtaatcgctggttgg
tggttcgagtcacccgttggagc
1-12tRNA-Lys(ttt)[66650,66724]
gcccctatagctcagttggtagagcaggagacttttaattctcggtcct
aggttcgatccctagtgggggcacc

>KX580962.1 Mycobacterium phage Wilder, complete genome

1-tRNA-Thr(cgt)[62791,62862]
ctggattagcttagtggtcaagcgctgccttcgtaacgcagattcaccg
gttcgattccggtatccagctc

1-2tRNA-Pro(tgg)[63091,63165]
ctggctgtagctcaactggtagagcgctggcttgggtgccaggggtg
cgggttcaaatcctgtagccagac

1-3tRNA-Trp(cca)[63295,63368]
agctcggtagctcaattggtagagcagcggtctcaaagccgccgttcc
ccgttcgagtcggggtcgggttc

1-4tRNA-Tyr(gta)[63480,63562]
tgggtggttgggcttgttgggtggccacctgactgtaaatcaggcggtt
cggcaccgggggttcgattccctcccgcacac

1-5tRNA-Leu(tag)[63604,63678]
ggccctctagcccaattggcagaggcacaggttttaggtacctgtcagtg
cgagttcgagtcgcggggggccac

1-6tRNA-His(gtg)[63679,63748]
gcttagtagcctagtggttaaggcagccggttgatccggtgaacctgag
ttcgattctcagctaaagcc

1-7tRNA-Gln(ctg)[63753,63827]
tgaccggtagcacaaactgtagttgcgccgcgctctggacgcggaggttg
ttggttcgatcccagctcggtcagc

1-8tRNA-Gly(tcc)[63946,64020]
gtgtagtaaccatgttggctgggtacctgacttcactcaggatttcg
cgggttcgattcctgtctagcacac

1-9tRNA-Lys(ctt)[64443,64518]
gcctcgtagctcagttggtagagctgccgactcttaacggtaggtcac
aggttcaagtcctgtacgggtacca

1-10tRNA-Cys(gca)[65700,65772]
gccgttggtgccagtggttaggtgccaggctgcaaacctggttagtcgc
gttcgattcgcggggacggctcc

1-11tRNA-Asn(gtt)[66041,66114]
tcctccgtagctcaattggcagagcgcgactgtaatcgctggttgg
tgggtcgagtcacccgttgagc

1-12tRNA-Lys(ttt)[66308,66382]
gccctatagctcagttggtagagcaggagacttttaattctcgggtcct
aggttcgatccctagtgggggcacc

>KX585253.1 Mycobacterium phage HedwigODU, complete genome

1-tRNA-Trp(cca)[1003,1076]
gggtgtgtagctcaatcggtagagcagcggtctcaaagccgccgttgc
acgttcgagtcgtgccgcgccgc

>KX585252.1 Mycobacterium phage HortumSL17, complete genome

1-tRNA-Glu(ctc)[5906,5978]
ggtccgttgagtagcggcaactcatctgactctcactcagaagatcgcg
ggttcaaatccgcacggactac

>KX585251.1 Mycobacterium phage Waterfoul, complete genome

1-tRNA-Trp(cca)[843,918]

atgcaggtagctcaattggtagagcagcggctctccaaaccgccggtgc

aggttcgagtcctgccctgtgtgcc

>KX670788.1 Mycobacterium phage Louie6, complete genome

1-tRNA-Asn(gtt)[3922,3997]

tgatctgtagctcaatcggcagagcaccggctgtaaccgggacgttgg

aggttcgagtcctcccagatcagcca

1-2tRNA-Trp(cca)[4038,4112]

aggcacgtagctcaattggcagagcagcggctctcaaagccgccggctg

caggttcgagtcctgccgtgtctgc

1-3tRNA-Leu(cag)[4147,4221]

ggctcggtaggcaaacaggcaaagccgcctgtctcaggaacaggtgcgtg

agggttcgactccctcccgagctac

>KX550082.1 Rhodococcus phage Natosaleda, complete genome

1-tRNA-Asn(gtt)[1503,1576]

tcacgtatagctcaatcggcagagcaacgcactgttaaggcgggggttga

aggttcgagtccttctacgtgagc

1-3tRNA-Trp(cca)[1702,1776]

gggcacgtagctcaattggatagagccccggctctcaaagccgggtggtg

ggggttcgagtcctccgggcctgc

>KX574455.1 Mycobacterium phage Pomar16, complete genome

1-tRNA-Asn(gtt)[4209,4283]

tgacgtgtagctcaatggcagagcatccggctgtaaccggacggttgaa

ggttcgagtccttctctgcagcca

1-2tRNA-Trp(cca)[4324,4397]

gtacacgtagctcaattggtagagcagtggtctccaaagccgccggttcc

aggttcgactcctggcgtgtatgc

1-3tRNA-Gln(ctg)[4449,4521]

tccccgttcgtctaatacggtgaagacgcctggctctggaccaggttaattga

ggttcgagtccttggcggggagc

1-4tRNA-Glu(ctc)[4555,4628]

ggtcccttggagtagcggagaactcatctggccctcaccagaagatcgc

gggttcgaatcccgcagggactac

1-5tRNA-Tyr(gta)[4632,4712]

cgcgagatacccaagcggcaacgggatctgactgtaaatcagacgcttcg

gcttcgcaggttcgagtcctgtctcgcgac

>KX641261.1 Mycobacterium phage Isiphiwo, complete genome

1-tRNA-Asn(gtt)[5402,5474]

tgacgtgtagctcaatggcagagcaccggctgtaaccggacggttgaa

ggttcgagtccttccatgtcagc

1-2tRNA-Trp(cca)[5479,5552]

gcgcctctagctcaattggtagagcagcggctctcaaagccgcgagttcc

aggttcgagtcctggggagcgtgc

1-3tRNA-Gln(ctg)[5594,5666]
 tcctcgttcgtctaatacggtgaagacacccggctctggacccggcaatcga
 gggtcagtccttgatggggagc

>KX641263.1 Mycobacterium phage Kalpine, complete genome
 1-1tRNA-Trp(cca)[6137,6210]
 gggcgtgtagtcaattggtagagcagcggctctcaaagccgcccgttcc
 aggttcgaatcctggcgggcccgc
 1-2tRNA-Glu(ctc)[6245,6318]
 gctcccttggagtagcggttaactcatctgactctcaatcagaagatcgc
 gggttcgaacccgcagggagtac

>KX641264.1 Mycobacterium phage LindNT, complete genome
 1-1tRNA-Trp(cca)[979,1052]
 ggggtcgtagctcaatcggtagagcagcggctctcaaagccgcccgttgc
 acgttcgagtcgtgccgcgcccgc

>KX641260.1 Mycobacterium phage Stasia, complete genome
 1-1tRNA-Trp(cca)[3994,4067]
 aggcacgtagctcaatcggtagagcagcggctctcaaagccgcccgttgc
 aggttcgagtcctgccgtgtctgc

>KX611788.1 Rhodococcus phage Harlequin, complete genome
 1-1tRNA-Asn(gtt)[1503,1576]
 tcacgtatagctcaatcggcagagcaacgcactgttaaggcgggggttga
 aggttcgagtccttctacgtgagc
 1-3tRNA-Trp(cca)[1702,1776]
 gggcacgtagctcaattggatagagccccggctctcaaagccggtggttg
 ggggttcgagtcctccgggcctgc

>KX576638.1 Mycobacterium phage Gruunaga, complete genome
 1-1tRNA-Asn(gtt)[5396,5468]
 tggcgtgtagtcaatggcagagccccggctgttaaccgggtggttga
 gggttcgagtcctccacgccagc
 1-2tRNA-Trp(cca)[5472,5545]
 gcgttcctagctcaattggtagagcagcggctctcaaagccgctgttcc
 aggttcgagtcctggggagcgtgc
 1-3tRNA-Gln(ctg)[5587,5659]
 tcctcgttcgtctaatacggtgaagacacccggctctggacccggtaatcga
 gggttcgagtccttgatggggagc

>KX834009.1 Mycobacterium phage Goldilocks, complete genome
 1-1tRNA-Arg(cct)[62292,62375]
 atggcccgtagctcagtcaggtagagcagccttgccttgcgggcttgg
 ttcgtccccggttcaaatccgggcgggccttgcc
 1-2tRNA-Gly(tcc)[62378,62450]
 gcgcccgtggtcgaattggaaagactcctggcttcacccaggttatgca
 gggttcgagtcctgtcgggcgctc

>KX845404.2 Klebsiella phage vB_Kpn_IME260, complete genome
 1-1tRNA-Trp(cca)[30293,30369]

attccccgagtggtactggacagcacgccggtctccaaaaccgtgcagta
ggagttcgagtcctctggggttgcca
1-2tRNA-Thr(tgt)c[31163,31238]
gcctcaatagctcagccgggagagcaaccgccttgaagcggtaggtcgt
gggttcgattcctacttggggcacca
1-3tRNA-Pro(tgg)c[31244,31320]
ttccccttagctcagtttggtagagcgggcgcttgggagcgtcaggtca
agtgttcaatcacttaggggagacca
1-4tRNA-Leu(taa)c[31578,31663]
acctctgtggtggaactggtatacacaccatgcttaaacgtggcgctt
aaatgattgaggggtcgagtcctccagaggtacca
1-5tRNA-Phe(gaa)c[32653,32730]
gcaactgtagctcagcgaggtgagagcactggttgaaagtcagggggtc
gttcgttcaaatcgaaccggtgcacca
1-6tRNA-Lys(ttt)c[32906,32981]
agatcgctagcttaatggttagagcactcgcctttaagcgataggtcc
gggttcgagtcgccggcggtctacca
1-7tRNA-Cys(gca)c[33168,33241]
gcatcattggccgagtgactaggcagaggcttgcaaacctcgcagcatg
gttaaaatccatgatggtgctcca
1-8tRNA-Asn(gtt)c[33322,33397]
gagagaagcagtaagtggatatggcggtcgcctgtaagcgaatgacagt
gagttcgaatctcacctctcccgcca
1-9tRNA-Tyr(gta)c[33507,33593]
ggggaatatctgtaagtggtagcagagcgggtctgtaaaatcgttgccat
tgcggctcgggtggttcgactccatcttccccacca
1-10tRNA-Asp(gtc)c[33830,33906]
gcggctatggtgttcagcgggtcaacataccggcctgtcacgtcggagcca
cgggttcgaatcccgttagccgcgcca
1-11tRNA-Val(tac)c[35476,35551]
acttgcttagctcaatcggtagagcatcgttttacacggcgaggtagc
tggttcgaaaccagcagcaagtacca
1-12tRNA-Met(cat)c[35555,35631]
ggtcagttggcagagatggttatgcactcgcttcatacgtgagactaca
gtggttcgagtcactattgaccacca
1-13tRNA-Ile(gat)c[35637,35712]
gcttcgatagctcagttggtagagcaaacgaccgataatcgtaggtcac
tggttcgagtcagttcggagtacca
1-14tRNA-Met(cat)c[36088,36164]
tgcaccgtagaggagaggccgtcctcgccagtcataagctggagatcg
caagttcgaatcttgccggagcatcca
1-15tRNA-Gln(ctg)c[36167,36242]
tggggtatagctcagtaggtagagcggaggtctctgaagccttaggtcac
aagttcgattctgttggccctgcca

1-16tRNA-Arg(acg)c[36372,36446]
gcaccattagttaatggatagaatatagactacgaactctatggtga
ggttcgattcctcgatggtgtacca
1-17tRNA-His(gtg)c[36454,36530]
gggatattatcataactggataatgacctcgattgtggatcgagtctatc
ttggtcgaatccaagatalccctcca
1-18tRNA-Ser(gct)c[36913,36999]
ggaaaactggtgaaattggtagccacacatcactgctaataatgatgatccg
taagggtatgtagggtcaagtcctacgttttcgcga
1-19tRNA-Leu(tag)c[37211,37297]
ggggatgtggcgaattggcagccgcgctagatttaggttctagtgtga
aataccgtgtgggtcgacccccctccatccctacca
1-20tRNA-Ala(tgc)c[37305,37383]
gggggatgggtctgctgggagtgacaccgcacttgcaatgcgggaatca
gaacggttcaaatccgttatcctccacca
1-21tRNA-Glu(ttc)c[37657,37733]
gctcctgtcgtctaagctggttaggacactactctttcacagtgggaaca
cgggttcgaaccccgctcgggagtagca
1-22tRNA-Gln(ttg)c[37744,37819]
aagggaatagccaagtgttacggcatcggcctttgactccgagatcggt
aggttcaactcctccttcccttgcca
1-23tRNA-Met(cat)c[38847,38924]
ggttcgaagctcattgggtatgagcaccgcctcataagcgaaggttag
gcaggttcgaatcctccgggagccacca
1-24tRNA-Arg(tct)c[39400,39475]
gcttccttagctcagagatagcaacggtcttctaaccgtgggtcac
aggttcgaatcctgtaggagtagca

>KX657793.1 Mycobacterium phage DARTHPhader, complete genome

1-1tRNA-Gln(ctg)[6296,6368]
tccccggtagtcgaactggcaagacgctcggctctggaccgagagaccga
ggttcgaatccttgccggggagc
1-2tRNA-Pro(ggg)c[21030,21120]
gttgccacgcgggtcgggtctcatctcgaccttgggggactcgaagagcg
ccaggtggagataccgggtgccagagtcggggtggtgacg

>KX657795.1 Mycobacterium phage DrHayes, complete genome

1-1tRNA-Trp(cca)[985,1058]
gggtgtgtagctcaatcggtagagcagcgggtctccaaagccgcccgttgc
acgttcgagtcgtgccgcgccgc

>KX657794.1 Mycobacterium phage SamuelLPlaqueson, complete genome

1-1tRNA-Trp(cca)[985,1058]
gggtgtgtagctcaatcggtagagcagcgggtctccaaagccgcccgttgc
acgttcgagtcgtgccgcgccgc

>KX657796.1 Mycobacterium phage Urkel, complete genome

1-1tRNA-Trp(cca)[985,1058]

ggggtgttagctcaatcggtagagcagcggtctccaaagccgccggtgc
 acgttcgagtcgtgccgcgccgc
 >KX808129.1 Mycobacterium phage Sabinator, complete genome
 1–1tRNA–Asn(gtt)[3838,3913]
 tgatctgtagctcaactggcagagcaccggctgtaaccgggtcgttg
 aggttcgagtcctcccagatcagcca
 1–2tRNA–Trp(cca)[3954,4028]
 aggcacgtagctcaattggtcagagcagcggtctccaaagccgccggtg
 cagggtcgagtcctgccgtgtctgc
 1–3tRNA–Leu(cag)[4063,4137]
 ggctcggtaggcaaacaggcaaagccgcctgtctcaggaacagggtcgtg
 agggttcgactccctcccgagctac
 >KX817173.1 Mycobacterium phage Tuco, complete genome
 1–1tRNA–Arg(cct)[63996,64079]
 atggcccgtagctcagtcaggtagagcagccttcccccttgccggttg
 ttcgtccccgggtcaaatacggcgggcggccttgcc
 1–2tRNA–Gly(tcc)[64082,64154]
 gcgcccgtggtcgaattggaaagactcctggcttcccccagggttatgca
 ggttcgagtcctgtcgggcgctc
 >KX897981.1 Mycobacterium phage StarStuff, complete genome
 1–1tRNA–Asn(gtt)[4209,4283]
 tgacgtgtagctcaatggcagagcatccggctgtaaccggacggttgaa
 ggttcgagtccttctcgtcagcca
 1–2tRNA–Trp(cca)[4324,4399]
 gtacacgtagctcaattggtagagcagtggtctccaaagccgccggttcc
 aggttcgactcctggcgtgtatgcca
 1–3tRNA–Gln(ctg)[4407,4479]
 tccccgttcgtctaatacggtaagacgcctggctctggaccaggtaattga
 ggttcgagtccttgccgggggagc
 1–4tRNA–Glu(ctc)[4514,4587]
 ggtcccttgagtagcggagaactcatctggccctcaccagaagatcgc
 gggttcgaatcccgcagggactac
 1–5tRNA–Tyr(gta)[4591,4671]
 cgcgagatacccaagcggcaacgggatctgactgtaaatcagacgcttcg
 gcttcgaggttcgagtcctgctctcgcgac
 >KY087992.1 Mycobacterium phage Mitti, complete genome
 1–1tRNA–Arg(gcg)[14120,14213]
 tcggcgcgctgcgcaggagatgggcagcagcgttcgcgccaccctgtcg
 aacctcaaggcggcctattcgcggttcggtgccgagctgtcggg
 1–2tRNA–Lys(ttt)[30768,30843]
 gccccgctagctcaatcggaagagcagccggctttaaccggcgggtacg
 gagatcgaaactccggcggggcacca
 >KY087993.1 Mycobacterium phage Hammy, complete genome
 1–1tRNA–Trp(cca)[809,884]

gggttcctagctcaattggtagagcagcggtctccaaagccgccggttgc
aggttcgactcctgcggagcccacca
1-2tRNA-Lys(ctt)[32806,32885]
gcacttttggctggtgagctaccgtaacaggcagactcttaacagcggg
tccgggggttcgaaacctgacggcgacca

>KY130461.1 Mycobacterium phage Taptic, complete genome

1-1tRNA-Gly(tcc)[51204,51275]
gcgcgactggtgtaactggaacacaaccttccagcgggaggtcccc
gttcgtgacgggggtcgcgctc

>KY223999.1 Mycobacterium phage MrMagoo, complete genome

1-1tRNA-Trp(cca)[57182,57253]
atgggcgtagctgacaggaagcaacggtctccaaagccgtgacacgcag
gttcgaatcctgccgccgtgc
1-2tRNA-Asn(gtt)[57783,57858]
tggggtatagccacaatggcagtgccaccgggctgtaactcggaagagt
gttggttcgagtcagctaccctagc
1-3tRNA-Arg(tcg)[58707,58778]
cggatagtcgtccagcggggcggtgggttttgcgcgagcccacgagcag
gttcgaatcctgactttccggc
1-4tRNA-Tyr(gta)[58851,58936]
ctcgtctctctctattggtgaagtgatctcaggctgtaaccctgagccc
tgcgggggttggtggttcgaatccatcaggcgagac
1-5tRNA-Gln(ctg)[59225,59296]
tgtcttctcgactaacggcaagtcaccaggctctgaccctggcaattgag
gttcgaatccttgggggacaac
1-6tRNA-Pro(tgg)[59302,59374]
cgggatattggtgtaagggttagcgtaccggcgttgagaccggaagacat
ggttcgagtcctatgtatcccgc
1-7tRNA-Phe(gaa)[59819,59891]
cgtgtttagctcagttggaagagcggcggttgaaaacccgcaggccca
ggttcggctcctggcatcacggc
1-8tRNA-Met(cat)[60032,60103]
tgcgcggtggtgtaacgggaacatcctggtctcataagtcagggttcgg
gttcgaatcccggctgcgcaac
1-9tRNA-Arg(acg)[60409,60487]
cccgatgttagcaacggagcgtcaatgggctacgaacccatattcgca
tgcagggttcgaatcctgtcatcgggtcca
1-10tRNA-His(gtg)[60490,60562]
cctctttagctcaatggaagagcagcggtttgtgagaccgcagacgacg
gatcgttaccgtccagggggacc
1-11tRNA-Cys(gca)[60749,60821]
gtcgagatgactgagtgataagtagcggcctgcaaagctgacttacgcc
ggttcgaatccggctctcgattc
1-12tRNA-Leu(tag)[61075,61151]

ggatctgtagcccaaatggaagaggcaacaggcttagaccctgttcagt
tgggttcgactccctccagattcacca
1-13tRNA-Leu(caa)[61153,61228]
gtcgcactaggcaaaactaggcaaagccgcaggcctcaaacgccagtgtt
gtgagttcgaatctcacgtcgagtac
1-14tRNA-Lys(ctt)[61232,61306]
gggatgttggtataaacggcaattactgcagactcttaatctgtcaaac
tgggttcgaatcccaggcgtccac
1-15tRNA-Ile(gat)[61307,61382]
tgtgatgtcgtccaacggttagggcaccgatctgatacatcgaaacca
gggttcaactccctgcttactacca
1-16tRNA-Gly(tcc)[61470,61546]
ggggtattcatctagtctggctcaggatgcgacactccactgtcgtcac
gagggttcgaatccttcatactcacc
1-17tRNA-Val(tac)[61593,61664]
tccccactcgtccaatgggagggcaccgcgttacaacgcgaggacggga
gttcgattctctcgtggggaac
1-18tRNA-Thr(agt)[61725,61802]
gctggatttgctcatgttggttgagcacctacctagtaagtaggagtac
gtcgggttcgattccgacatccagcccca
1-19tRNA-Ala(tgc)[61861,61931]
gggcgcagtgtccaaggtggcgaccgacctgtcaaggtggtgggcgag
ttcgattctcgtcgttccac
1-20tRNA-Asp(gtc)[62009,62084]
cccgatcatctagaggcctaggatgccactctgtcgaagtgtcacac
gggttcaaatcccgttggcgggacca
1-21tRNA-Glu(ctc)[62144,62215]
ggttcattggtgtaatggcagcatcgagggttcaacctgttgcaggg
gatcgtaacccctatgaactac

>KY224000.1 Mycobacterium phage Rich, complete genome

1-1tRNA-Arg(ccg)[35149,35243]
cccggcaagttctggcactggtggggcaccaacacctccgacgagtggt
gggaccggtcgagcccggccagcgggtcaacctcgcctaccgggc

>KY380102.1 Mycobacterium phage CREW, complete genome

1-1tRNA-Trp(cca)[1053,1126]
gggtgtgtagctcaatcggtagagcagcgggtctccaaagccgccggttgc
acgttcgagtcgtgccgcgccgc

>KY303907.1 Enterococcus phage EF-P29, complete genome

1-1tRNA-Trp(cca)[24880,24952]
tgcgttgaagtgtaatggctgcacaatgggtcctccaaaccattagagag
ggttcgactccttcacaacgtgt

>KY319168.1 Mycobacterium phage CrystalP, complete genome

1-1tRNA-Arg(cct)[63089,63172]
atggcccgtagctcagtcaggtagagcagccttggcccttgcgggcttgg

ttctccccgggtcaaatacgggcgggccttgcc
 1–2tRNA–Gly(tcc)[63175,63247]
 gcgcccgtggtcgaattggaaagactcctggctccacccaggttatgca
 ggttcgagtcctgtcgggcgctc
 >KX130960.1 Escherichia phage vB_EcoS-IME253, complete genome
 1–1tRNA–Arg(tct)[11634,11711]
 gctctgtagctcaacagtagcagcaacaccttctaagtcgtaggtt
 actgggtcgaatccagtgcggagcgcca
 >KY398841.1 Escherichia phage vB_Ecos_CEB_EC3a, complete genome
 1–1tRNA–Arg(tct)[4662,4739]
 gctctgtagctcaacaggacagcagcaacaccttctaagtcgtaggtt
 actgggtcgaatccagtgcggagcgcca
 >KY549152.1 Mycobacterium phage Maxxinista, complete genome
 1–1tRNA–Arg(cct)[62523,62606]
 atggcccgtagctcagtcaggtagagcagccttcccccttgcgggcttgg
 ttctccccgggtcaaatacgggcgggccttgcc
 1–2tRNA–Gly(tcc)[62609,62681]
 gcgcccgtggtcgaattggaaagactcctggctccacccaggttatgca
 ggttcgagtcctgtcgggcgctc
 >KY549153.1 Rhodococcus phage Angryorchard, complete genome
 1–1tRNA–Asn(gtt)[1496,1569]
 tcacgtatagctcaatcggcagagcaacgcactgtaaggcgggggttga
 aggttcgagtccttctacgtgagc
 1–2tRNA–Trp(cca)[1647,1721]
 gggcacgtagctcaattggatagagccccggctctcaaagccggtggttg
 ggggttcgagtcctccgggcctgc
 >KY549154.1 Rhodococcus phage BobbyDazzler, complete genome
 1–1tRNA–Asn(gtt)[1503,1576]
 tcacgtatagctcaatcggcagagcagcgactgtaaggcgttggtga
 aggttcgagtccttctacgtgagc
 1–3tRNA–Trp(cca)[1766,1840]
 gggcacgtagctcaattggatagagccccggctctcaaagccggtggttg
 ggggttcgagtcctccgggcctgc
 >KY464936.1 Mycobacterium phage Idleandcovert, complete genome
 1–1tRNA–Asn(gtt)[3721,3794]
 tgacgttagctcaatcggcagagcaccggctgtaaccgggcggttga
 aggttcgagtccttccatgtcagc
 1–2tRNA–Trp(cca)[3829,3902]
 aggcgctgtagctcaattggaagagcagcggtctcaaagccgccgctgc
 aggttcgagccctgccgctctgc
 >KY471269.1 Gordonia phage DinoDaryn, complete genome
 1–1tRNA–Lys(ttt)[24013,24086]
 gccctttagctcagttggtagagctggtgacttttaactactaggtcgt
 aggttcgagtcctacagggggcac

>KY471268.1 *Gordonia* phage Huffy, complete genome
1-tRNA-Lys(ttt)c[24013,24086]
gcccccttagctcagttggtagagctggtgacttttaactactaggtcgt
aggttcgagtcctacagggggcac

>KY472224.1 *Enterococcus* phage EF-P10, complete genome
1-tRNA-Trp(cca)c[21555,21627]
tgcgttgtaagtgaatggctgcacaatggctcctccaaaccattagagag
ggttcgactccttcacaacgtgt

>KY471460.1 *Mycobacterium* phage Jabith, complete genome
1-tRNA-Trp(cca)[6115,6188]
gcactctagctcaattggtagagcagcggtctccaaagccggttcc
aggttcaagtcctggggagtggtgc

>KY555142.1 *Caulobacter* phage Ccr10, complete genome
1-tRNA-Trp(cca)[47810,47885]
gtcggctagctcatgggtagagcggcggtctccaaaccgcgctggc
aggttcgagtcctcgcgaccggcgcca
1-2tRNA-Gly(gcc)[47891,47965]
gcgtccatcgtatatgggttattgcttcgcttgccaacgcgacgaaccg
ggttcgagtcctccggtggacgtcca
1-3tRNA-Gly(tcc)[47972,48045]
gcgggtatagctcaaggagagctactgcctccaagcagaagatgcgg
gttcgagccccgctatccgtcca
1-4tRNA-Glu(ttc)[48202,48279]
ggccccggtcgtctagcgggttcgagattcgtgactttcaatcacgagag
cggagttcaggtcctccgtcgggcctcca
1-5tRNA-Asp(gtc)[48301,48375]
ggtgcgttcgtatatcggtaatactccgattgtcgatccggcaagagg
ggttcgattcccctacgcaccgcca
1-6tRNA-Pro(cgg)[49245,49320]
cggggtgtagctcagtcggtagagcgtcgggtcgggaccgagaggccgt
gggttcgagtcctccgccaccagacca
1-7tRNA-Pro(ggg)[49328,49402]
cgggatgtagctcagcggtagagcgcggctgggggcccgcgaggccgca
ggttcgagacctgccacccgacca
1-8tRNA-Thr(ggt)[49408,49480]
gctgctgcgcctggatcggcgccggccccttggtatggggaagtagaagg
ttcaattcctccagcagcacca
1-9tRNA-Lys(ctt)[49593,49679]
ggatgtgtcacctcagtggcgagaggaccgggctcttaatccggcagcga
aagctcatcgtgggttcgagtcaccacatcctcca
1-10tRNA-Lys(ttt)[49685,49775]
gcacgagtgacccgagtggcgaaggcgctcgacttttaatagactaggcg
tccgcgcctcaccgaggttcgagtcctcctcgtgtcca
1-11tRNA-Leu(cag)[49782,49865]

gcgaaagtggcggaacggcagacgcactgggtctcaggtaccagcgacttc
ggatcatgagggttcgaatccctcctttcgtacca
1-12tRNA-Leu(caa)[49873,49957]
gccggctctggcggaatggcagacgcagtggttcaagtcccaccgcctt
cgggctgcccgttcgagccggggaccggcacca
1-13tRNA-Leu(gag)[49963,50051]
tgcaagtggcggaacttggtagacgcaccggcatgagaggccggcgcc
cttcggggctgaggggttcgagtccttcttcgcacca
1-14tRNA-Ala(tgc)[50135,50205]
ggggtatgcgcagggcgaggcatccttgcagggaagtcggggtgggtt
cgagtcccacatactccacca
1-15tRNA-Ser(cga)[50210,50297]
ggtaggttggtctgagaggccgaaggcgcccgttcgaaaacgggaggacc
gcaaggttcgtgggttcgaatcccacacctaccca
1-16tRNA-Ser(gga)[50302,50389]
ggatgtatggctgagaggccgaaggcgcccgttgaaagcgggtgaacc
gcaaggttcgtaggttcgaatcctactgcaccccca
1-17tRNA-Phe(gaa)[51084,51159]
ggactctagctcagcaggtagagcgccggttgaaaccccgaggtcgg
aggttcgactcctcccgtttccacca
1-18tRNA-Val(gac)[51165,51240]
gcccgatgagccagatgggaaggcgccgcccgcacatggcgggattgaga
aggttcgattccttcacagcacca
1-19tRNA-Ile(gat)[51243,51318]
gcaagtgtagctcagttggtagacgcggaccgataatccgccgtccc
tggttcgagtcaggcatttcacca
1-20tRNA-Ile(gat)[51326,51400]
tgtggcatagctcaggggtagagcgcgcttgataagcgtgaggacggg
ggttcgaagccctctgccactacca
1-21tRNA-Val(cac)[51434,51509]
tggcgttagcatagtgagggtgcagggtgtcacatacctcgatgaac
tggttcgattccagtaacgccaacca
1-22tRNA-Gln(ctg)[51515,51588]
tgagggttcgtctaacggtaggacggctgggtctggtccagctaatttag
gttcgagtcctagcccctcatcca
1-23tRNA-Gln(ttg)[51597,51672]
tcagggttagtttagctggtaaacactgggtttggccccggcgtcgt
aggttcgaagcctgcaccctgatcca
1-24tRNA-Ile(aat)[51684,51758]
tccagtcattgcacaaggtgtgcagcggcactgttaatgcctgtgagccc
ggttcgattccggggtctggagcca
1-25tRNA-Arg(tct)[51961,52038]
gcgcaggtagctcaacggaccagagcgaccgttctctacacggagggtt
gggggttcgaatccctccttcgcgcacca

1-26tRNA-Cys(gca)c[101366,101454]
gcttcggtggactgagaggttaggcgcgggattgcaaatctctgctgggtg
ggaacacctatgaggggttcgagtcctcccgaagctcca
1-27tRNA-Gly(tcc)c[102034,102107]
tttcgaatagcacagtggtagtgcaacagccgtcctagctgtcggtcgc
gggttcaatccccgcttcgalgaa
1-29tRNA-Met(cat)[103180,103258]
cgcggggtagaggagtcgggtgtcctcgtctggctcataaccaggagat
cgtgggttcaaatcccactcccgtccca
1-30tRNA-Met(cat)[103630,103714]
ggtagcgtggctcgacaggttaaggcatcggcctcataagccgagggttcg
tcccaatcctgggttcaaatccaggctgtacctcca

>KY555143.1 Caulobacter phage Ccr2, complete genome

1-1tRNA-Trp(cca)[48285,48360]
gtcggctagctcatgggtagagcggcgggtctccaaaccgcgcgtggc
aggttcgagtcctcgcgaccggcgcca
1-2tRNA-Gly(gcc)[48366,48440]
gcgtccatcgtatatgggttattgcttcgcttgccaacgcgacgaaccg
ggttcgagtcgggtggacgtcca
1-3tRNA-Gly(tcc)[48447,48520]
gcgggtatagctcaaggagagctactgcctccaagcagaagatgcgg
gttcgagccccgtatccgtcca
1-4tRNA-Glu(ttc)[48677,48754]
ggccccgtcgtctagcgggttcgaggattcgtgactttcaatcacgagag
cggagttcgagtcctcgtcgggcctcca
1-5tRNA-Asp(gtc)[48776,48850]
ggtgcgttcgtatatcggtaatactccgattgtcgatccggcaagagg
ggttcgattcccctacgcaccgcca
1-6tRNA-Pro(cgg)[49720,49795]
cggggtgtagctcagtcggtagagcgtcgggtcgggaccgagaggccgt
gggttcgagtcgccccaccagacca
1-7tRNA-Pro(ggg)[49803,49877]
cgggatgtagctcagcggtagagcgcggctgggggccgcgaggccgca
ggttcgagacctgccacccgacca
1-8tRNA-Thr(ggt)[49883,49955]
gctgctgcgcctggatcggcgcggccccttggtatggggaagtagaagg
ttcaattcctccagcagacca
1-9tRNA-Lys(ctt)[50068,50154]
ggatgtgtcacctcagtcggcagaggaccgggctcttaatccggcagcga
aagctcatcgtgggttcgagtcaccacatcctcca
1-10tRNA-Lys(ttt)[50160,50250]
gcacgagtgacccgagtcggcgaaggcgtcgacttttaatagactaggcg
tccgcgcctcaccgaggttcgagtcctcctcgtgtcca
1-11tRNA-Leu(cag)[50257,50340]

gcgaaagtggcggaacggcagacgcacttggtctcaggtaccagcgacttc
ggcatgaggggtcgaatccctcctttctacca
1-12tRNA-Leu(caa)[50348,50432]
gccggctctggcggaatggcagacgcagtggttcaagtcaccgcctt
cgggcgtcccgttcgagccggggaccggcacca
1-13tRNA-Leu(gag)[50438,50526]
tgcgaagtggcggaacttggtagacgcaccggcatgagaggccggcgcc
cttcggggcgtgaggggttcagtccttcttcgcacca
1-14tRNA-Ala(tgc)[50610,50680]
ggggtatgcgcagggcgaggcatccttgcagggaagtcgggtgggtt
cgagtcacatactccacca
1-15tRNA-Ser(cga)[50685,50772]
ggtaggttggtcagagggccgaaggcgccggttcgaaaacgggaggacc
gcaaggtccgtgggttcgaatccacacctacctca
1-16tRNA-Ser(gga)[50777,50864]
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gcaaggtccgtaggttcgaatcctactgcatccgcca
1-17tRNA-Phe(gaa)[51559,51634]
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aggttcgactcctcccgtttccacca
1-18tRNA-Val(gac)[51640,51715]
gcccgatgagccagatgggaaggcgccgccgacatggcgggattgaga
aggttcgattccttcacagcacca
1-19tRNA-Ile(gat)[51718,51793]
gcaagtgtagctcagttggtagacgagcgaccgataatccgccgtccc
tggttcgagtcaggcatttcacca
1-20tRNA-Ile(gat)[51801,51875]
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ggttcgaagccctctgccactacca
1-21tRNA-Val(cac)[51909,51984]
tggcgttagcatagtgggagtcaggggttcacatacctcgatcgaac
tggttcgattccagtaacgccaacca
1-22tRNA-Gln(ctg)[51990,52063]
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gttcgagtcctagcccctcatcca
1-23tRNA-Gln(ttg)[52072,52147]
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1-24tRNA-Ile(aat)[52159,52233]
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ggttcgattccggggtctggagcca
1-25tRNA-Arg(tct)[52436,52513]
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gggggttcgaatccctccttcgcgcacca

1-26tRNA-Cys(gca)c[101841,101929]
gcttcgggtggactgagaggttaggcgcgggattgcaaatctctgctgggtg
ggaacacctatgaggggttcgagtcctccccaagctcca
1-27tRNA-Gly(tcc)c[102509,102582]
tttcgaatagcacagtggtagtgcaacagccgtcctagctgtcggtcgc
gggttcaatccccgcttcgalgaa
1-29tRNA-Met(cat)[103655,103733]
cgcggggtagaggagtcgggttgtcctcgtctggctcataaccaggagat
cgtgggttcaaatcccactcccgtccca
1-30tRNA-Met(cat)[104105,104189]
ggtagcgtggctcgacaggtgaaggcatcggcctcataagccgagggttcg
tcccaatcctgggttcaaatccaggtcgtacctcca

>KY55145.1 *Caulobacter* phage Ccr29, complete genome

1-1tRNA-Trp(cca)[52818,52893]
gtcggctagctcatgggtagagcggcgggtctccaaaaccgcgcgtggc
aggttcgagtcctcgcgaccggcgcca
1-2tRNA-Gly(gcc)[52899,52973]
gcgtccatcgtatatgggttattgcttcgcttgccaacgcgacgaaccg
ggttcgagtcgggtggacgtcca
1-3tRNA-Gly(tcc)[52980,53053]
gcgggtatagctcaaggagagctactgcctccaagcagaagatgcgg
gttcgagccccgctatccgtcca
1-4tRNA-Glu(ttc)[53210,53287]
ggccccggtcgtctagcgggttcgaggattcgtgactttcaatcacgagag
cggagttcgagtcctcgtcgggcctcca
1-5tRNA-Asp(gtc)[53309,53383]
ggtgcgttcgtatatcggtaatactccgattgtcgatccggcaagagg
ggttcgattcccctacgcaccgcca
1-6tRNA-Pro(cgg)[54253,54328]
cggggtgtagctcagtcggtagagcgtcgggtcgggaccgagaggccgt
gggttcgagtcgcccccaccagacca
1-7tRNA-Pro(ggg)[54336,54410]
cgggatgtagctcagcggtagagcgcggctgggggccgcgaggccgca
ggttcgagacctgccacccgacca
1-8tRNA-Thr(ggt)[54416,54488]
gctgctgcgcctggatcggcgcggccccttggtatggggaagtagaagg
ttcaattccttcagcagcacca
1-9tRNA-Lys(ctt)[54601,54687]
ggatgtgtcacctcagtcggcagagaggaccgggtcttaatccggcagcga
aagctcatcgtgggttcgagtcaccacatcctcca
1-10tRNA-Lys(ttt)[54693,54783]
gcacgagtgacccgagtcggcgaaggcgctgacttttaatagactaggcg
tccgcgcctcaccgaggttcgagtcctcctcgtgtcca
1-11tRNA-Leu(cag)[54790,54873]

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1-12tRNA-Leu(caa)[54881,54965]
gccggctctggcggaatggcagacgcagtggttcaagtcccaccgcctt
cgggctgcccgttcgagccggggaccggcacca
1-13tRNA-Leu(gag)[54971,55059]
tgcaagtggcggaacttggtagacgcaccggcatgagaggccggcgcc
cttcggggctgaggggttcgagtccttcttcgcacca
1-14tRNA-Ala(tgc)[55143,55213]
ggggtatgcgcagggcgaggcatccttgcagggaagtcgggtgggtt
cgagtcccacatactccacca
1-15tRNA-Ser(cga)[55218,55305]
ggtaggttggtctgagaggccgaaggcgcccgttgcgaaacgggaggacc
gcaaggtccgtgggttcgaatcccacacctacctcca
1-16tRNA-Ser(gga)[55310,55397]
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1-17tRNA-Phe(gaa)[56092,56167]
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aggttcgactcctcccgtttccacca
1-18tRNA-Val(gac)[56173,56248]
gcccgatgagccagatgggaaggcgccgcccgcacatggcgggattgaga
aggttcgattccttcacagcacca
1-19tRNA-Ile(gat)[56251,56326]
gcaagtgtagctcagttggtagacgcggaccgataatccgccgtccc
tggttcgagtcaggcatttcacca
1-20tRNA-Ile(gat)[56334,56408]
tgtggcatagctcaggggtagagcgcgcttgataagcgtgaggacggg
ggttcgaagccctctgccactacca
1-21tRNA-Val(cac)[56442,56517]
tggcgtttagcatagtgagggtgcagggtgtcacatacctcgatcgaac
tggttcgattccagtaacgccaacca
1-22tRNA-Gln(ctg)[56523,56596]
tgagggttcgtctaacggtaggacggctgggtctggtccagctaatttag
gttcgagtcctagcccctcatcca
1-23tRNA-Gln(ttg)[56605,56680]
tcagggttagtttagctggtaaacactgggtttggccccggcgctcgt
aggttcgaagcctgcaccctgatcca
1-24tRNA-Ile(aat)[56692,56766]
tccagtcfaatgcacaaggtgtgcagcggcactgttaatgcctgtgagccc
ggttcgattccgggtctggagcca
1-25tRNA-Arg(tct)[56969,57046]
gcgcaggtagctcaacggaccagagcgaccgttctctacacggagggtt
gggggttcgaatccctccttcgcgcacca

1-26tRNA-Cys(gca)c[106374,106462]

gcttcggtggactgagaggttaggcgcgggattgcaaatctctgctgggtg
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1-27tRNA-Gly(tcc)c[107042,107115]

tttcgaatagcacagtggtagtgcaacagccgtcctagctgtcggtcgc
gggttcaatccccgcttcgalgaa

1-29tRNA-Met(cat)[108188,108266]

cgcgggtagaggagtcgggtgtcctcgtctggctcataaccaggagat
cgtgggttcaaateccactcccgtccca

1-30tRNA-Met(cat)[108638,108722]

ggtagcgtggctcgacaggttaaggcatcggcctcataagccgagggttcg
tcccaatcctgggtcaaateccaggtcgtacctcca

>KY555146.1 Caulobacter phage Ccr32, complete genome

1-1tRNA-Trp(cca)[47830,47905]

gtcggctagctcatgggtagagcggcgggtctccaaaaccgcgcgtggc
aggttcgagtcctcgcgaccggcgcca

1-2tRNA-Gly(gcc)[47911,47985]

gcgtccatcgtatatgggttattgcttcgcttgccaacgcgacgaaccg
ggttcgagtcgggtggacgtcca

1-3tRNA-Gly(tcc)[47992,48065]

gcggatatagctcaaggagagctactgcctccaagcagaagatgcgg
gttcgagccccgctatccgtcca

1-4tRNA-Glu(ttc)[48222,48299]

ggccccgtcgtctagcgggttcgaggattcgtgactttcaatcacgagag
cggagttcaggtcctcgtcgggcctcca

1-5tRNA-Asp(gtc)[48322,48396]

ggtgcgttcgtatatcggtaatactccgattgtcgatccggcaagagg
ggttcgattcccctacgcaccgcca

1-6tRNA-Pro(cgg)[49836,49911]

cggggtgtagctcagtcggtagagcgtcgggtcgggaccgagaggccgt
gggttcgagtcgcccccaccagacca

1-7tRNA-Pro(ggg)[49919,49993]

cgggatgtagctcagcggtagagcgcggctgggggccgcgaggccgca
ggttcgagacctgccacccgacca

1-8tRNA-Lys(ctt)[50184,50270]

ggatgtgtcacctcagtggcgagaggaccggccttaatccggcagcga
aagctcatcgtgggttcgagtcaccacatacctcca

1-9tRNA-Lys(ttt)[50277,50367]

gcacagtgtagccgagcggcgaaggcgtcgacttttaatcgactaggcg
tccgcgcctaccgagggttcgagtcctcctcgtgctcca

1-10tRNA-Leu(cag)[50374,50457]

gcgaaagtggcggaacggcagacgcactggtctcaggtaccagcgacttc
ggatcatgagggttcgaatccctcctttctacca

1-11tRNA-Leu(caa)[50465,50549]

gccggtctggcggaatggcagacgcagtggttcaagtcaccgcctt
cgggcgctcccggttcgagccggggaccggcacca
1-12tRNA-Leu(gag)[50555,50643]
tgcgaagtggcggaacttggtagacgcaccggcatgagaggccggcgcc
cttcggggcgtaggggttcgagtccttcttcgcacca
1-13tRNA-Ala(tgc)[50727,50797]
ggggtatgcgcagggcgagggcatccttgaaggaagtcgggtgggtt
cgagtcacacatactccacca
1-14tRNA-Ser(cga)[50802,50889]
ggtaggttggtctgagaggccgaaggcgccgttcgaaaacgggaggacc
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1-15tRNA-Ser(gga)[50894,50981]
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1-16tRNA-Phe(gaa)[51675,51750]
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aggttcgattcctcccgttccacca
1-17tRNA-Val(gac)[51756,51831]
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1-18tRNA-Ile(gat)[51834,51909]
gcaagtgtagctcagtcggtagagcagcgaccgataatccgctgtccc
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1-19tRNA-Ile(gat)[51917,51991]
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1-20tRNA-Val(cac)[52025,52100]
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tgggtcgattccagtaacccaacca
1-21tRNA-Gln(ctg)[52106,52179]
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gttcgagtcctagcccctcatcca
1-22tRNA-Gln(ttg)[52187,52260]
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gttcgattccttgcccgagaacca
1-23tRNA-Ile(aat)[52276,52350]
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ggttcgattccgggtctggagcca
1-24tRNA-Gly(tcc)[52553,52630]
gcgcgggtagctcaatggaccagagcagccgtctccacacggaaggtt
gggggttcgaatccctccccgtgcgcca
1-26tRNA-Cys(gca)c[102013,102101]
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ggaacacctatgagggttcgagtcctcccgaagctcca

1-27tRNA-Gly(tcc)[102681,102754]
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 >KY555147.1 Caulobacter phage Ccr34, complete genome
 1-1tRNA-Trp(cca)[48270,48345]
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 1-2tRNA-Gly(gcc)[48351,48425]
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 ggttcgagtcctccgggtggacgtcca
 1-3tRNA-Gly(tcc)[48432,48505]
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 1-4tRNA-Glu(ttc)[48662,48739]
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 1-5tRNA-Asp(gtc)[48762,48836]
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 ggttcgattcccctacgcaccgcca
 1-6tRNA-Pro(cgg)[50276,50351]
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 gggttcgagtcctccgccaccagacca
 1-7tRNA-Pro(ggg)[50359,50433]
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 ggttcgagacctgccacccgacca
 1-8tRNA-Lys(ctt)[50624,50710]
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 1-9tRNA-Lys(ttt)[50717,50807]
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 1-10tRNA-Leu(cag)[50814,50897]
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 1-11tRNA-Leu(caa)[50905,50989]
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 1-12tRNA-Leu(gag)[50995,51083]

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cgagtccacatactccacca
1-14tRNA-Ser(cga)[51242,51329]
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1-15tRNA-Ser(gga)[51334,51421]
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1-16tRNA-Phe(gaa)[52115,52190]
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1-17tRNA-Val(gac)[52196,52271]
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aggttcgattccttcacagcacca
1-18tRNA-Ile(gat)[52274,52349]
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tgggtcaggtccaggcattgcacca
1-19tRNA-Ile(gat)[52357,52431]
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ggttcgaagccctctgccactacca
1-20tRNA-Val(cac)[52465,52540]
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tgggtcgattccagtaacgccaacca
1-21tRNA-Gln(ctg)[52546,52619]
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gttcgagtcctagcccctcatcca
1-22tRNA-Gln(ttg)[52627,52700]
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gttcgattccttggccgagaacca
1-23tRNA-Ile(aat)[52716,52790]
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ggttcgattccgggtctggagcca
1-24tRNA-Gly(tcc)[52993,53070]
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1-26tRNA-Cys(gca)c[102453,102541]
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1-29tRNA-Met(cat)[104267,104345]
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 >KY555144.1 Caulobacter phage Ccr5, complete genome
 1-1tRNA-Trp(cca)[47682,47757]
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 1-2tRNA-Gly(gcc)[47763,47837]
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 ggttcgagtcgggtggacgtcca
 1-3tRNA-Gly(tcc)[47844,47917]
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 gttcgagccccgctatccgtcca
 1-4tRNA-Glu(ttc)[48074,48151]
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 1-6tRNA-Pro(cgg)[49110,49185]
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 1-7tRNA-Pro(ggg)[49193,49267]
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 1-8tRNA-Lys(ctt)[49456,49542]
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 1-9tRNA-Lys(ttt)[49548,49637]
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 1-10tRNA-Leu(cag)[49644,49729]
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 1-11tRNA-Leu(caa)[49737,49821]
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 cgggcgtcccgttcgatccggggaccggcacca
 1-12tRNA-Leu(gag)[49828,49915]
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 1-13tRNA-Ala(tgc)[50006,50076]

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1-14tRNA-Ser(cga)[50081,50168]
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gcaaggttccgtgggttcgaatcccacacctacctcca
1-15tRNA-Ser(gga)[50173,50260]
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1-16tRNA-Phe(gaa)[50956,51031]
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1-17tRNA-Val(gac)[51037,51112]
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aggttcgattcctcatcaggcacca
1-18tRNA-Ile(gat)[51115,51190]
gcaagtgtagctcagtcggtagagcagcgaccgataatcccccgtccc
tggttcgagtcaggcatttcacca
1-19tRNA-Ile(gat)[51198,51272]
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ggttcgaagccctctgccactacca
1-20tRNA-Val(cac)[51306,51381]
tggcgtttagcatagtgggagtgagggtgtcacatacctcgatcgaac
tggttcgattccagtaacgccaacca
1-21tRNA-Gln(ctg)[51387,51460]
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gttcgagtcctagccccctcatcca
1-22tRNA-Gln(ttg)[51468,51541]
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gttcgattccttggccgagaacca
1-23tRNA-Ile(aat)[51557,51631]
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ggttcgattccggggtctggagcca
1-24tRNA-Arg(tct)[51834,51911]
gcgcgggtagctcaatggaccagagcagccgtcttctacacggtgggtt
gggggttcgaatccctccccgtgcgcca
1-25tRNA-Cys(gca)c[101727,101815]
gcttcggtggactgagaggttaggcgcgggattgcaaatctctgctggtg
ggaacacctatgagggttcgagtcctcccgaagctcca
1-26tRNA-Lys(ctt)c[102395,102468]
tttcgaatagcacagtggtagtgcaacagcccttaagctgtcggtcgc
gggttcaatccccgcttcgatgaa
1-28tRNA-Met(cat)[103541,103619]
cgcggggtagaggagtcgggtgtcctcgtctggctcataaccaggagat
cgtgggttcaatcccactcccgtccca

1-29tRNA-Met(cat)[103986,104070]
 ggtagcgtggctcgacaggtgaagcgcctcgcctcataagccgagggttcg
 tcccaatcctggttcaaatccaggtcgtagctcca

>KY619305.1 Escherichia phage vB_EcoS_ESCO41, complete genome
 1-1tRNA-Arg(tct)[7289,7366]
 gctccgctagctcaattggaaagaagcaacgaccttctaagtcgtaggtt
 actggttcgaacccagtcgaggcgcca

>KY677846.1 Escherichia phage phiLLS, complete genome
 1-1tRNA-Arg(tct)[44136,44210]
 cggggtgtagtctaaggagaggcaggagtcttctaattcctttatgca
 ggttcgaatcctgtcacctcgcca
 1-2tRNA-Ser(gct)[47745,47833]
 ggaagaatagcataacggtattgcagcagattgctaactgtcggttga
 aatatagccttgggttcgattcccgcttctccgcca
 1-3tRNA-Leu(taa)[48133,48209]
 gggggtgtaatcgaattggcataggtactggactaaaattcaggtttg
 tgggttcgaatcccaccacctacca
 1-4tRNA-Tyr(gta)[49157,49244]
 gggcggtttattccgtaagtggtagcggagggttgaatccctggta
 ttgcgactcgagtggttcgactccattaacgcccacca
 1-5tRNA-Glu(ttc)[49252,49326]
 gcacctatcgtctagcggtaggacaccactcttcacagtgggaacacg
 agttcgaccctcgttgggtgtgcca
 1-6tRNA-Phe(gaa)[49413,49487]
 gcacctttagctgagatggattagcgttgcctgaagagcttgagaggt
 cgttcgattcgaacagggtgcacca
 1-7tRNA-Cys(gca)[49847,49922]
 cgaccgttggctgaatggcttaggcgaaggattgcaaatccttttatgt
 gattcaaatctcatcggtcgtcca
 1-8tRNA-Asn(gtt)[50439,50516]
 ggttccttagctctaattggtagagcggcatctgttaagttgagggt
 gctggttcgaatccagcaggaaccgcca
 1-9tRNA-Asp(gtc)[50814,50890]
 gcgaccggggtggttggtatgttactcccctgtcacgggagggaatg
 tgggttcaaatcccatcggtcgcca
 1-10tRNA-Pro(tgg)[52062,52139]
 ctccgtgtagctcagtttggccagagcgttctgttggggcgatagggtc
 gggggttcaaatcctcccacggagacca
 1-11tRNA-Met(cat)[52146,52223]
 tgcgggttagatctctggtagagatcgctagtctcataagctagaagag
 gtaggttcgattcctgcaccgctcca
 1-12tRNA-Lys(ttt)[52413,52491]
 agatcgctagctcaataggttagtagcatccgactttaatcggaaggt
 tctgggttcgagtcaggcgatctacca

1-13tRNA-Ala(tgc)[52872,52948]
 ggggaatgggtctgcatggagtggacacctcgcttgaccaggagacatca
 gaacggttcgattccgttattctccac
 1-14tRNA-Leu(tag)[52956,53032]
 gcgtgattgatggaattggcatacataccgtccttagaagtcgggtttg
 agggttcgaatccctgtcacgcacca
 1-15tRNA-His(gtg)[53708,53784]
 ttggctatatcataattggtaatgatcctgattgtgaatcaggcctatg
 tggattcgaattccactagccaccca
 1-16tRNA-Gln(ctg)[54018,54093]
 tgggatgtagatcaattggcagatcgtcggcctctgactccgaaggttcc
 acgttcgatccgtggcatcccagcca
 1-17tRNA-Gln(ttg)[54100,54175]
 ttggagagtagtgaacggtagcacaacggccttgactccgttaatggt
 aggttcgattcctccttccagcca
 1-18tRNA-Gly(tcc)[54746,54817]
 gcggttagcctcatggtggggactcagcctccaagctgatggagagggt
 tcgattccctctagccgctcca
 1-19tRNA-Thr(tgt)[55253,55327]
 gctcctaaagcattgctggcgatgcagttgcctgtgaagcatcgaaccg
 ggttcgattcctggtgggagcacca
 1-20tRNA-Ile(gat)[55708,55784]
 gcttcgtagcttagcgatctaaagcactcggccgataaccgagagatcg
 ggggtttaaaccctcccggagtacca
 1-21tRNA-Met(cat)[55881,55956]
 agttagtggcagagtggttatgcacctccttcatacggagcgactacag
 tggttcaaatccactactaactacca

>KY554768.1 Lactococcus phage AM1, complete genome

1-1tRNA-Arg(tct)[46773,46845]
 gttcggtagtgtaattggataacacacataatttctaattatgtactct
 ggattcgagttccagactgagca
 1-3tRNA-Asp(gtc)[47568,47638]
 ggcttattagtatatgggtactacacatccctgtcacggaggagaaccga
 gttcgagtctcgataagccg
 1-4tRNA-Pro(tgg)[47987,48058]
 caggatatagtgttaatggtagcatgcgtgtttgggaacatgtagtgtt
 ggttcgagtcagctatcctga
 1-5tRNA-Trp(cca)[49122,49197]
 ttggttgtagctcagttggtagtagcactagtctccaaaactaggtgtc
 gtgagttcgaatctcacccaatcagt
 1-6tRNA-Trp(cca)[49372,49443]
 atccgtttagtgtaggtagcacatcagattccaaacctgataacgtg
 ggttcgattcctacaatggata

>KY554775.1 Lactococcus phage AM11, complete genome

1-1tRNA-Arg(tct)[46546,46618]
gttcggttagtgaattggataacacacataatttctaattatgtactct
ggattcgagttccagactgagca
1-3tRNA-Asp(gtc)[47341,47411]
ggcttattagtatatgggtactacacatccctgtcacggaggagaaccga
gttcgagtcctcgataagccg
1-4tRNA-Pro(tgg)[47760,47831]
caggatatagtgttaatggtagcatgcgtgtttgggaacatgtagtgtt
ggttcgagtcagctatcctga
1-5tRNA-Trp(cca)[48895,48970]
ttggttggtagctcagttggtagtagcactagtctccaaaactaggtgtc
gtgagttcgaatctcacccaatcagt
1-6tRNA-Trp(cca)[49145,49216]
atccgtttagtgtagtggttagcacatcagattccaaacctgataacgtg
ggttcgattcctacaatggata

>KY554776.1 Lactococcus phage AM12, complete genome

1-1tRNA-Arg(tct)[46527,46599]
gttcggttagtgaattggataacacacataatttctaattatgtactct
ggattcgagttccagactgagca
1-3tRNA-Asp(gtc)[47322,47392]
ggcttattagtatatgggtactacacatccctgtcacggaggagaaccga
gttcgagtcctcgataagccg
1-4tRNA-Pro(tgg)[47741,47812]
caggatatagtgttaatggtagcatgcgtgtttgggaacatgtagtgtt
ggttcgagtcagctatcctga
1-5tRNA-Trp(cca)[48876,48951]
ttggttggtagctcagttggtagtagcactagtctccaaaactaggtgtc
gtgagttcgaatctcacccaatcagt
1-6tRNA-Trp(cca)[49126,49197]
atccgtttagtgtagtggttagcacatcagattccaaacctgataacgtg
ggttcgattcctacaatggata

>KY554769.1 Lactococcus phage AM2, complete genome

1-1tRNA-Arg(tct)[46770,46842]
gttcggttagtgaattggataacacacataatttctaattatgtactct
ggattcgagttccagactgagca
1-3tRNA-Asp(gtc)[47565,47635]
ggcttattagtatatgggtactacacatccctgtcacggaggagaaccga
gttcgagtcctcgataagccg
1-4tRNA-Pro(tgg)[47984,48055]
caggatatagtgttaatggtagcatgcgtgtttgggaacatgtagtgtt
ggttcgagtcagctatcctga
1-5tRNA-Trp(cca)[49119,49194]
ttggttggtagctcagttggtagtagcactagtctccaaaactaggtgtc
gtgagttcgaatctcacccaatcagt

1-6tRNA-Trp(cca)[49369,49440]
atccgtttagttagtggttagcacatcagattccaaacctgataacgtg
ggttcgattcctacaatggata

>KY554770.1 Lactococcus phage AM3, complete genome
1-1tRNA-Arg(tct)[47147,47219]
gttcggttagtgaattggataacacacataatttctaattatgtactct
ggattcgagttccagactgagca
1-3tRNA-Asp(gtc)[47942,48012]
ggcttattagtatatgggtactacacatccctgtcacggaggagaaccga
gttcgagtcctcgataagccg
1-4tRNA-Pro(tgg)[48361,48432]
caggatatagtgttaatggtagcatgcgtgtttgggaacatgtagtgtt
ggttcgagtcagctatcctga
1-5tRNA-Trp(cca)[49496,49571]
ttggttgtagctcagttgtagtagcactagtctccaaaactaggtgtc
tgagttcgaatctcacccaatcagt
1-6tRNA-Trp(cca)[49746,49817]
atccgtttagttagtggttagcacatcagattccaaacctgataacgtg
ggttcgattcctacaatggata

>KY554771.1 Lactococcus phage AM4, complete genome
1-1tRNA-Met(cat)[29760,29832]
ggttctatagcttagatggtaaagtcctctgcccataacagagttaacgc
aggttcaagccctgctagaacca
1-2tRNA-Arg(tct)[31584,31657]
gttcggttagtcaattggatagagtattcgcttctaagcgaaaggta
tgagttcaagcctcactactgaaca
1-4tRNA-Pro(tgg)[32560,32631]
caggatatagtgttaatggtagcatgcgtgtttgggaacatgtagtgct
ggttcgagtcagctatcctga

>KY554772.1 Lactococcus phage AM5, complete genome
1-1tRNA-Met(cat)[47715,47787]
ggttctatagcttagatggtaaagtcctctgcccataacagagttaacgc
aggttcaagccctgctagaacca
1-2tRNA-Arg(tct)[49539,49612]
gttcggttagtcaattggatagagtattcgcttctaagcgaaaggta
tgagttcaagcctcactactgaaca
1-4tRNA-Pro(tgg)[50515,50586]
caggatatagtgttaatggtagcatgcgtgtttgggaacatgtagtgct
ggttcgagtcagctatcctga

>KY554766.1 Lactococcus phage AM6, complete genome
1-1tRNA-Pro(tgg)c[61438,61511]
caggatatagctcagcttggttagagcactgcttttgggaagcaggggtca
gaggttcaaatcctttatcttga
1-2tRNA-Thr(tgt)c[61576,61649]

gccgatttagctcagtttggtagagcgtctgatttgaatcagagggtca
caggttcaagtcctgtagtcggca
1-3tRNA-Asn(gtt)c[61705,61777]
tgaccatagctcagttggtagagcgtcgactgttaatgcgaatgctgt
aggttcgagtcctactgggtcag
1-4tRNA-Cys(gca)c[61883,61955]
ctccctgtggccgagtggttaggtgcagctctgcaaaagctgatacgtt
ggttcgaatccgactagggagtc

>KY554767.1 Lactococcus phage AM7, complete genome

1-1tRNA-Pro(tgg)c[61636,61709]
caggatatagctcagcttggtagagcactgcttttggaagcaggggtca
gaggttcaatccttttatctga
1-2tRNA-Thr(tgt)c[61774,61847]
gccgatttagctcagtttggtagagcgtctgatttgaatcagagggtca
caggttcaagtcctgtagtcggca
1-3tRNA-Asn(gtt)c[61903,61975]
tgaccatagctcagttggtagagcgtcgactgttaatgcgaatgctgt
aggttcgagtcctactgggtcag
1-4tRNA-Cys(gca)c[62081,62153]
ctccctgtggccgagtggttaggtgcagctctgcaaaagctgatacgtt
ggttcgaatccgactagggagtc

>KY554773.1 Lactococcus phage AM8, complete genome

1-1tRNA-Arg(tct)[46543,46615]
gttcggtagtgaattggataacacacataatttctaattatgtactct
ggattcgagttccagactgagca
1-3tRNA-Asp(gtc)[47338,47408]
ggcttattagatatgggtactacacatccctgtcacggaggagaaccga
gttcgagtcctcgataagccg
1-4tRNA-Pro(tgg)[47757,47828]
caggatatagtgttaatggtagcatgcgtgttttggaacatgtagtgt
ggttcgagttccagctatcctga
1-5tRNA-Trp(cca)[48892,48967]
ttggttggtagctcagttggttagtagcactagtctccaaaactaggtgtc
tgagttcgaatctcacccaatcagt
1-6tRNA-Trp(cca)[49142,49213]
atccgttagttagtggttagcacatcagattccaaacctgataacgtg
ggttcgattcctacaatggata

>KY554774.1 Lactococcus phage AM9, complete genome

1-1tRNA-Arg(tct)[46544,46616]
gttcggtagtgaattggataacacacataatttctaattatgtactct
ggattcgagttccagactgagca
1-3tRNA-Asp(gtc)[47339,47409]
ggcttattagatatgggtactacacatccctgtcacggaggagaaccga
gttcgagtcctcgataagccg

1-4tRNA-Pro(tgg)[47758,47829]
caggatatagtgttaatggtagcatgcgtgtttgggaacatgtagtgt
ggttcgagtcagctatcctga
1-5tRNA-Trp(cca)[48893,48968]
ttggttgtagctcagttggtagtagcactagtctccaaaactaggtgtc
gtgagttcgaatctcacccaatcagt
1-6tRNA-Trp(cca)[49143,49214]
atccgttagttagtggttagcacatcagattccaacctgataacgtg
ggttcgattcctacaatggata

>KY554762.1 Lactococcus phage LW31, complete genome

1-1tRNA-Thr(tgt)c[60012,60085]
gccgatttagctcagttggtagagcgtctgattgtaacagagggtca
caggttcaagtcctgtagtcggca
1-2tRNA-Asn(gtt)c[60142,60214]
tgacctatagctcagttggtagagcgtcgactgttaatgcgaatgtcgt
aggttcgagtcctactgggccag
1-3tRNA-Cys(gca)c[60381,60452]
ggtcttatagtggaaggctaacacaggagactgcaaactctaatcgtc
ggttcaaaccgactaggacct

>KY554763.1 Lactococcus phage LW32, complete genome

1-1tRNA-Thr(tgt)c[59622,59695]
gccgatttagctcagttggtagagcgtctgattgtaacagagggtca
caggttcaagtcctgtagtcggca
1-2tRNA-Asn(gtt)c[59752,59824]
tgacctatagctcagttggtagagcgtcgactgttaatgcgaatgtcgt
aggttcgagtcctactgggccag
1-3tRNA-Cys(gca)c[59991,60062]
ggtcttatagtggaaggctaacacaggagactgcaaactctaatcgtc
ggttcaaaccgactaggacct

>KY554764.1 Lactococcus phage LW33, complete genome

1-1tRNA-Thr(tgt)c[59359,59432]
gccgatttagctcagttggtagagcgtctgattgtaacagagggtca
caggttcaagtcctgtagtcggca
1-2tRNA-Asn(gtt)c[59489,59561]
tgacctatagctcagttggtagagcgtcgactgttaatgcgaatgtcgt
aggttcgagtcctactgggccag
1-3tRNA-Cys(gca)c[59728,59799]
ggtcttatagtggaaggctaacacaggagactgcaaactctaatcgtc
ggttcaaaccgactaggacct

>KY554765.1 Lactococcus phage LW4, complete genome

1-1tRNA-Thr(tgt)c[59678,59751]
gccgatttagctcagttggtagagcgtctgattgtaacagagggtca
caggttcaagtcctgtagtcggca
1-2tRNA-Asn(gtt)c[59808,59880]

tgaccatagctcagttggtagagcgtgcactgttaatgcgaatgtcgt
aggttcagtcctactgggccag
1-3tRNA-Cys(gca)[60047,60118]
ggctctatagtgaaggctaacacaggagactgcaaatctctaactgtc
ggttcaaatccgactaggacct

>KY554777.1 Lactococcus phage LW81, complete genome

1-1tRNA-Met(cat)[49462,49534]
ggttctatagcttagatggtaaagtcctctgccataacagagttaacgc
aggttcaagccctgctagaacca
1-2tRNA-Arg(tct)[52085,52158]
gttcggttagctcaattggatagagtattcgcttctaagcgaaaggta
tgagttcaagcctcactgaaca
1-4tRNA-Asp(gtc)[53062,53134]
ggttgttggtgtagtggttatcacgctgcctgtcacgcaagagaacac
gggttcgaatcccgtacaaatcg
1-5tRNA-Trp(cca)[54119,54194]
ttggttggtagctcagttggtagtagcactagtctccaaactagggtc
gtgagttcgaatctcacccaatcagt
1-6tRNA-Trp(cca)[54369,54440]
atccggttagtgtagtggttagcacatcagattccaaacctgataacgtg
ggttcgattcctacaatggata
1-7tRNA-Met(cat)[54660,54733]
tacgggggtgggtggcaaggagtcacattagttcataggctaaataaggg
cggttcgattccgtcaccccgat

>KY554760.1 Lactococcus phage R3.4, complete genome

1-1tRNA-Trp(cca)[26909,26981]
tgcgagcatagtatagtggaatgctacagattccaaacctgtaaacgtg
ggttcgattcctactgttcgtgt
1-2tRNA-Pro(tgg)[27035,27106]
caggatatggtgtcaatggttagcatacgtgtttgggaacatgtggtgtt
ggttcgagtcagctatcctga

>KY554761.1 Lactococcus phage R31, complete genome

1-1tRNA-Trp(cca)[26702,26774]
tgcgagcatagtatagtggaatgctacagattccaaacctgtaaacgtg
ggttcgattcctactgttcgtgt
1-2tRNA-Pro(tgg)[26828,26899]
caggatatggtgtcaatggttagcatacgtgtttgggaacatgtggtgtt
ggttcgagtcagctatcctga

>KY783914.1 Mycobacterium phage GardenSalsa, complete genome

1-1tRNA-Trp(cca)[57182,57253]
atgggcgtagctgacaggaagcaacggctctccaaagccgtgacacgcag
gttcgaatcctgccgccgtgc
1-2tRNA-Asn(gtt)[57783,57858]
tggggtatagccacaatggcagtgccaccgggctgttaactcggaagagt

gttggttcgagtcagctaccctagc
1-3tRNA-Arg(tcg)[58707,58778]
cggatagtcgtccagcggggcggtgggttttcgcgagcccacgagcag
gttcgaatcctgactttccggc
1-4tRNA-Tyr(gta)[58851,58936]
ctcgtctctctctattggtgaagtgatctcaggctgtaaccctgagccc
tgcgggggtgtggtgggtcgaatccatcaggcgagac
1-5tRNA-Gln(ctg)[59225,59296]
tgtcttctcgactaacggcaagtcaccaggctctgaccctggcaattgag
gttcgaatccttgggggacaac
1-6tRNA-Pro(tgg)[59302,59373]
cgggatatggtgtaagggtagcgtaccggcggtggagaccggaagacatg
gttcgagtcctgtatcccgac
1-7tRNA-Phe(gaa)[59818,59890]
cgtgtttagctcagttggaagagcggcggttgaaaacccgaggccca
ggttcggctcctggcatcacggc
1-8tRNA-Met(cat)[60031,60102]
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gttcgaatcccggtgcgcaac
1-9tRNA-Arg(acg)[60408,60486]
cccgatgttgagcaacggagcgctcaatgggctacgaacccatattcgca
tgcaggttcgaatcctgtcatcgggtcca
1-10tRNA-His(gtg)[60489,60561]
cctctttagctcaatggaagagcagcggtttgtgagaccgcagacgacg
gatcgttaccgtccagggggacc
1-11tRNA-Cys(gca)[60748,60820]
gtcgagatgactgagtgataagtagcggcctgcaaagctgacttacgcc
ggttcgaatccggctctcgattc
1-12tRNA-Leu(tag)[61074,61150]
ggatctgtagcccaaatggaagaggcaacaggcttagaccctgttcagt
tgggttcgactccctccagattcacca
1-13tRNA-Leu(caa)[61152,61227]
gctcgactaggcaaaactaggcaaagccgaggcctcaaaccagtggtt
gtgagttcgaatctcacgtcgagtac
1-14tRNA-Lys(ctt)[61231,61305]
gggatgttggtataaacggcaattactgcagactcttaatctgtcaaac
tgggttcgaatcccaggcgtccac
1-15tRNA-Ile(gat)[61306,61381]
tgtgatgtcgtccaacggttagggcaccgatctgatacatcggaacca
gggttcaactccctgcttactacca
1-16tRNA-Gly(tcc)[61469,61545]
ggggattcatctagtctggctcaggatgcgacactccactgtcgtcac
gagggttcgaatccttcatactcacc
1-17tRNA-Val(tac)[61592,61663]

tccccactcgtccaatgggagggcaccgcgcttacaacgcgaggacggga
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 1–18tRNA–Thr(agt)[61724,61801]
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 gtcggttcgattccgacatccagcccca
 1–19tRNA–Ala(tgc)[61860,61930]
 gggcgcatgtccaaggtggcgaccgaccctgcaaggtggtgggcgag
 ttcgattctcgtcgctccac
 1–20tRNA–Asp(gtc)[62008,62083]
 cccgtcatcatctagaggcctaggatgccactctgtcgaagtgtcacac
 gggttcaaatcccgttggcgggacca
 1–21tRNA–Glu(ctc)[62143,62214]
 ggttcattggtgtaatggcagcatcgagggttcaacctgttggcaggg
 gatcgtaaccctatgaactac
 >KY705261.1 Streptococcus phage P5652, complete genome
 1–1tRNA–Val(aac)[32001,32092]
 ggtgaactaggccgtgacaaagaaagtgttaacgcacactatataaagc
 gatttatatgggctgtgagggtcgactccctcgctcgctg
 >KF192053.1 Enterococcus phage IME–EF1, complete genome
 1–1tRNA–Trp(cca)c[39478,39550]
 tgcgttgaagtgaatggctgcacaatgggtccaaaccattagagag
 gttcgactccttcacaacgtgt
 >JF731128.1 Enterococcus phage SAP6, complete genome
 1–1tRNA–Trp(cca)c[41169,41240]
 gaggcggttagtgaatggtagcacaacagtctccaaactgtagagag
 gttcgattccttcactgcttg
 >KR011064.1 Tsukamurella phage TIN4, complete genome
 1–1tRNA–Asn(gtt)[12481,12554]
 tggcatatagctcaatcggcagagctccgactgttaatcggatggttac
 aggttcaagtctctgttatgccagc
 >KY965063.1 Mycobacterium phage PurpleHaze, complete genome
 1–1tRNA–Asn(gtt)[3872,3947]
 tgacgttagctcaatcggcagagcacccggctgttaaccggcggttga
 aggttcgagtccttccatgtcagcca
 1–2tRNA–Trp(cca)[3988,4062]
 aggcacgtagctcaattggcagagcagcggctcctcaaagccgcccgtg
 caggttcgagtcctgccgtgtctgc
 1–3tRNA–Leu(cag)[4097,4171]
 ggctcggtaggcaaacaggcaaagccgcctgtctcaggaacaggtgcgtg
 agggttcgactccctcccagctac
 >JN699628.1 Mycobacterium phage Bongo, complete genome
 1–1tRNA–Arg(ccg)[32355,32450]
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>MF358542.1 Streptomyces phage Sushi23, complete genome

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agaggttcaaatcctctcgtgacagc

1-40tRNA-Leu(gag)[105401,105483]
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 tgagcgtccgggttcgactcccgggtggcggtac
 1-41tRNA-Val(gac)[105920,105991]
 acccgcttagctcaatggtagagcgctgctcgacacgcaggagacatga
 gttcaattctcttagtgggtac
 1-42tRNA-Leu(caa)[106416,106492]
 ggctctgtagcagaatcaggtatatgcgcgggtctcaaaccgggtcaa
 tgtgggttcgagtcctcagggctac
 1-43tRNA-Ser(gct)[106726,106809]
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 aaaaggctcgggttcgaatcctcctcctccgc
 1-44tRNA-Gln(ttg)[117198,117278]
 tccccagttgctctgttggtagggccgctgactttgaatcaggacta
 gcgacgtaggttcgaatcctgcctggggagc
 >MF373840.1 Mycobacterium phage Fred313, complete genome
 1-1tRNA-Asn(gtt)[3421,3494]
 tgatctgtagctcaaccggcagagcaccggctgtaaccgggcccgttg
 aggttcgagtcctccagatcagc
 1-2tRNA-Trp(cca)[3530,3603]
 aggcgcgtagctcaattggtagagcagcggctccaaagccgctgctgc
 aggttcgagtcctgccgcgtctgc
 >MF373842.1 Rhodococcus phage Jester, complete genome
 1-1tRNA-Asn(gtt)[1503,1576]
 tcacgtatagctcaatcggcagagcaacgcactgtaaggcgggggtga
 aggttcgagtcctctacgtgagc
 1-3tRNA-Trp(cca)[1702,1776]
 gggcacgtagctcaattggatagagccccgggtctccaaagccggtggtg
 ggggttcgagtcctccgggcctgc
 >MF324915.1 Mycobacterium phage Amgine, complete genome
 1-1tRNA-Gln(ctg)[34683,34774]
 tcggcgctagtggcgtgcgagcagccctcgccgctctggcgctcgtcga
 ggggccttacgcgctgccggtgcgattccagcgtgctggccc
 >MF324913.1 Mycobacterium phage Cain, complete genome
 1-1tRNA-Trp(cca)[889,963]
 ggggtgttagctcaaccggtagagcagcgggtctccaaagccgcccgttg
 caggttcgattcctgccgcgcccgc
 1-2tRNA-Lys(ttt)[31432,31505]
 gccctgtagctcagttggtagagcaggagacttttaatcttcgggtcca
 aggttcgatcccttcgggggcac
 >MF324910.1 Mycobacterium phage GuuelaD, complete genome
 1-1tRNA-Thr(cgt)[62780,62851]
 gctggattagcttagtggtcaagcgtgccttcgtaacgcagattaccg
 gttcgattccggtatccagctc

1-2tRNA-Pro(tgg)[63080,63154]
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caggttcaaactctgtagccagac

1-3tRNA-Trp(cca)[63275,63350]
agctcggtagctcaatttggtagagcagcggtctccaaagccgcggttcc
ccgttcgagtcggggccgggttgcca

1-4tRNA-Leu(tag)[64035,64109]
ggccctctagcccaattggcagaggcacaggttttaggtacctgtcagt
cgagttcgagtctcgggggccac

1-5tRNA-His(gtg)[64110,64179]
gcttagtagcctagtggttaaggcagccggttgatccggtgaacctgag
ttcgattctcagctaaagcc

1-6tRNA-Gln(ctg)[64184,64258]
tgaccgtagcacaactggtagttgcgccgcgctctggacgagggttg
ttggttcgatcccagctcggtcagc

1-7tRNA-Gly(tcc)[64307,64381]
gtgctagtaaccatgttggtgggtacctgactccactcaggatttcg
cgggttcgattcctgtctagcacac

1-8tRNA-Lys(ctt)[64424,64501]
tgccctgtagctcagttggtagagctccgactcttaatcggtaggtca
caggttcaagtcctgtacgggtaccca

1-9tRNA-Cys(gca)[65683,65754]
gccgttgtgtccgagtggttaggtgccaggctgcaaacttggttagtcgc
gttcgattcgcggggacggctc

1-10tRNA-Asn(gtt)[66162,66235]
tcctccgtagctcaattggcagagcgcgactgtaatcgctggttgg
tggttcgagtcacccgttgagc

1-11tRNA-Lys(ttt)[66429,66503]
gccctatagctcagttggtagagcaggagacttttaatttcgggtcct
aggttcgatccctagtgggggcacc

>MF324914.1 Mycobacterium phage Krueger, complete genome
1-1tRNA-Lys(ttt)[32445,32518]
gcccctgtagctcagtcggtagagcaggagacttttaatttcgggtcca
aggttcgatcccttcgggggcac

>MF324899.1 Mycobacterium phage Lokk, complete genome
1-1tRNA-Gln(ctg)[6114,6195]
gccctgttcgtttaatcggcaggactcccgtctggacgcagagacaacg
ggcaatggaggttcgactcctctacggggcac

>MF324909.1 Mycobacterium phage PhelpsODU, complete genome
1-1tRNA-Trp(cca)[893,967]
gggtgtgtagctcaaccggtagagcagcggtctccaaagccgcggtta
caggttcgattcctgtcgcggccgc

1-2tRNA-Lys(ttt)[31464,31537]
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aggttcgatccctgccggggcac
 >MF324912.1 Mycobacterium phage Phrank, complete genome
 1–1tRNA–Trp(cca)[895,969]
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 caggttcgattcctgccgcgccgc
 1–2tRNA–Lys(ttt)c[31421,31494]
 gccctgtagctcagttggtagagcaggagacttttaatcttcgggtcca
 aggttcgatccctgccggggcac
 >MF324911.1 Mycobacterium phage SirPhilip, complete genome
 1–1tRNA–Trp(cca)[784,857]
 ggggtgttagctcaattggtagagcagcggtctccaaagccgccggttg
 aggttcgagtcctgccgcgctcgc
 >MF324908.1 Mycobacterium phage Unicorn, complete genome
 1–1tRNA–Trp(cca)[893,967]
 ggggtgttagctcaaccggtagagcagcggtctccaaagccgccggtta
 caggttcgattcctgtcgccgccgc
 1–2tRNA–Lys(ttt)c[31464,31537]
 gcctccgtagctcaattggcagagcagctgacttttaatcagcggtcgc
 aggttcgatccctgccggggcac
 >MF324905.1 Rhodococcus phage Alatin, complete genome
 1–1tRNA–Asn(gtt)[1503,1576]
 tcacgtatagctcaatcggcagagcaacgcactgtaaggcgggggttg
 aggttcgagtccttctacgtgagc
 1–3tRNA–Trp(cca)[1702,1776]
 gggcacgtagctcaattggatagagccccggtctccaaagccggtggttg
 ggggttcgagtcctccgggcctgc
 >MF324903.1 Rhodococcus phage AppleCloud, complete genome
 1–2tRNA–Trp(cca)[1409,1483]
 gggcacgtagctcaattggatagagccccggtctccaaagccggtggttg
 ggggttcgagtcctccgggcctgc
 >MF324898.1 Rhodococcus phage Hiro, complete genome
 1–1tRNA–Asn(gtt)[1503,1576]
 tcacgtatagctcaatcggcagagcaacgcactgtaaggcgggggttg
 aggttcgagtccttctacgtgagc
 1–3tRNA–Trp(cca)[1702,1776]
 gggcacgtagctcaattggatagagccccggtctccaaagccggtggttg
 ggggttcgagtcctccgggcctgc
 >MF324902.1 Rhodococcus phage Krishelle, complete genome
 1–1tRNA–Asn(gtt)[1503,1576]
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 aggttcgagtccttctacgtgagc
 1–3tRNA–Trp(cca)[1702,1776]
 gggcacgtagctcaattggatagagccccggtctccaaagccggtggttg
 ggggttcgagtcctccgggcctgc

>MF324901.1 Rhodococcus phage Naiad, complete genome

1-tRNA-Asn(gtt)[1503,1576]

tcacgtatagctcaatcggcagagcaacgcactgttaaggcgggggttga

aggttcgagtccttctacgtgagc

1-3tRNA-Trp(cca)[1702,1776]

gggcacgtagctcaattggatagagccccggctcctccaaagccggtggttg

ggggttcgagtcctccgggcctgc

>MF324904.1 Rhodococcus phage RexFury, complete genome

1-tRNA-Asn(gtt)[1534,1607]

tcacgtatagctcaatcggcagagcaacgcactgttaaggcgggggttga

aggttcgagtccttctacgtgagc

1-3tRNA-Trp(cca)[1733,1807]

gggcacgtagctcaattggatagagccccggctcctccaaagccggtggttg

ggggttcgagtcctccgggcctgc

>MF324900.1 Rhodococcus phage StCroix, complete genome

1-tRNA-Asn(gtt)[1503,1576]

tcacgtatagctcaatcggcagagcaacgcactgttaaggcgggggttga

aggttcgagtccttctacgtgagc

1-3tRNA-Trp(cca)[1702,1776]

gggcacgtagctcaattggatagagccccggctcctccaaagccggtggttg

ggggttcgagtcctccgggcctgc

>MF185717.1 Mycobacterium phage AlleyCat, complete genome

1-tRNA-Trp(cca)[847,920]

atcgggtagctcaattggtagagcagcggctcctccaaaccgccggttgc

aggttcgagtcctgccccgtgtgc

>MF185726.1 Mycobacterium phage Appletree2, complete genome

1-tRNA-Leu(caa)[60774,60848]

ggtcctgtaggcaaattggcaaagccgctcactcaaaatgacgtgtctg

tgggttcgagtcaccacgggactac

1-2tRNA-Thr(cgt)[60849,60923]

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cgggttcgaggcccgaggcagctc

1-3tRNA-Lys(ctt)[61210,61283]

gcctcgtagctcagttggttagagctgccgactcttaatcggtaggtcgc

aggttcaagtcctgcacggggtac

1-4tRNA-Tyr(gta)[61294,61377]

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1-5tRNA-Trp(cca)[61387,61462]

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1-6tRNA-Leu(tag)[62011,62085]

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cgagttcgattctgggcgggccac

1-7tRNA-Cys(gca)[63311,63384]
gccgctgtggccgagtggttaggcaccggcctgcaaagccggttagtcg
gttcgattccggaggcggtcca

1-8tRNA-Lys(ttt)c[63665,63739]
gccctatagctcagttggtagagctatcgcttttaagcgacaggtcgc
aggttcgagtcctgctgggggcacc

>MF185727.1 Mycobacterium phage BobSwaget, complete genome
1-tRNA-Gln(ctg)[6109,6190]
gcctgttcgtttaatcggcaggactcccgtctggacgcagagacaacg
ggcaatggaggttcgactcctctacggggcac

>MF185719.1 Mycobacterium phage Edugator, complete genome
1-tRNA-Trp(cca)[847,920]
atcgggtagctcaattggtagagcagcggtctccaaaaccgcggttc
aggttcgagtcctgccccgtgtgc

>MF185720.1 Mycobacterium phage Guillsminger, complete genome
1-tRNA-Trp(cca)[822,897]
tcgcaggtagctcaattggtagagcagcggtctccaaaaccgcggttc
aggttcgagtcctgctctgcgggcca

>MF185729.1 Mycobacterium phage KADY, complete genome
1-tRNA-Asn(gtt)[3922,3997]
tgatctgtagctcaatcggcagagcaccggctgttaaccgggacgttg
aggttcgagtcctcccagatcagcca

1-2tRNA-Trp(cca)[4038,4112]
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caggttcgagtcctgccgtgtctgc

1-3tRNA-Leu(cag)[4147,4221]
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agggttcgactccctcccgagctac

>MF185730.1 Mycobacterium phage Miley16, complete genome
1-tRNA-Thr(cgt)[63338,63411]
gccaccttagctcagttggtagagcagccccttcgtaacgggcaggtcag
cgggtcgattccgctaggtggctc

1-2tRNA-Pro(tgg)[63639,63713]
ctggctgtagctcaactggtagagcgtggcttgggtgccaggggttg
caggttcaaatcctgtagccagac

1-3tRNA-Trp(cca)[63834,63907]
agctcggtagctcaattggtagagcagcggtctccaaagccgcccgttc
ccgttcgagtcggggtcgggttc

1-4tRNA-Tyr(gta)[64018,64100]
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cggcaccgggggttcgattccctcccaccacac

1-5tRNA-Leu(tag)[64514,64588]
ggccctctagcccaattggcagaggcacaggttttaggtacctgtcagtg
cgagttcgagtcctcgggggccac

1-6tRNA-His(gtg)[64589,64658]
gcttagtagcctagtggttaaggcagccggttgatccggtgaacctgag
ttcgattctcagctaaagcc
1-7tRNA-Gln(ctg)[64663,64737]
tgaccggtagcacaaactggtagttgcgccgcgtctggacgagggttg
ttggttcgatcccagctcggtcagc
1-8tRNA-Gly(tcc)[64853,64927]
gtgctagtaacctatgttgctgggtgcctgactccactcaggattcg
cgggttcgattcctgtctagcacac
1-9tRNA-Lys(ctt)[64970,65047]
tgccctgtagctcagttggtagagctgccgactcttaacggtaggtca
caggttcaagtctgtacgggtaccca
1-10tRNA-Cys(gca)[66237,66310]
gccgtcatggctgagtggttaggcgtcggactgcaaatccggcttatccc
agttcgattctgggtggcggtcc
1-11tRNA-Asn(gtt)[66672,66745]
tcctccgtagctcaattggcagagcgcgcgactgttaacgcgtggttg
tggttcgagtcacccgttgagc
1-12tRNA-Lys(ttt)c[66939,67013]
gcccctatagctcagttggtagagcaggagacttttaatctcgggtcct
aggttcgatccctagtgggggcacc

>MF185722.1 Mycobacterium phage Peanam, complete genome

1-tRNA-Trp(cca)[1038,1111]
gggtgtgtagctcaattggcagagcagcggctctcaaagccgccggtgc
acgttcgatccgtgccgcgccgc

>MF185732.1 Mycobacterium phage Stagni, complete genome

1-tRNA-Asn(gtt)[3842,3917]
tgatctgtagctcaatcggcagagcacccggctgttaaccgggacgttg
aggttcgagtcctcccagatcagcca
1-2tRNA-Trp(cca)[3958,4032]
aggcacgtagctcaattggtcagagcagcggctctcaaagccgcccgtg
caggttcgagtcctgccgtgtctgc
1-3tRNA-Leu(cag)[4067,4141]
ggctcggtaggcaaacaggcaaagccgcctgtctcaggaacaggtgcgtg
agggttcgactccctcccagctac

>MF185733.1 Mycobacterium phage StepMih, complete genome

1-tRNA-Asn(gtt)[3833,3908]
tgatctgtagctcaatcggcagagcacccggctgttaaccgggacgttg
aggttcgagtcctcccagatcagcca
1-2tRNA-Trp(cca)[3949,4023]
aggcacgtagctcaattggtcagagcagcggctctcaaagccgcccgtg
caggttcgagtcctgccgtgtctgc
1-3tRNA-Leu(cag)[4058,4132]
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agggttcgactccctcccgagctac

>MF140398.1 Mycobacterium phage Amohnition, complete genome
 1-tRNA-Trp(cca)[812,887]
 ggggtcctagctcaattggtagagcagcggtctccaaagccgcggttgc
 aggttcgactcctgcggagcccgcca

>MF140402.1 Mycobacterium phage Chancellor, complete genome
 1-tRNA-Arg(gcg)[14207,14300]
 tcggcggcgctgcgcaggagatgggcagcagcgttcgcgccacctgtcg
 aacctcaaggcggcctattcgcggttcggtgccgagctgtcggg
 1-2tRNA-Lys(ttt)c[30855,30930]
 gccccgtagctcaatcggaagagcagccggctttaaccggcgggtacg
 gagatcgaaactccggcggggcacca

>MF140403.1 Mycobacterium phage Changeling, complete genome
 1-tRNA-Trp(cca)[6187,6260]
 gggcacgtagctcaatcggtagagcagcggtctccaaagccgaggttcc
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>MF140405.1 Mycobacterium phage Clautastrophe, complete genome
 1-tRNA-Tyr(gta)[39564,39647]
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 tcggcttcgggggttcaattccctctgccacac
 1-2tRNA-Thr(cgt)[62792,62864]
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 1-3tRNA-Pro(tgg)[63217,63289]
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 ggttcgactccctggttccgac
 1-4tRNA-Trp(cca)[63633,63706]
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 aggttcgactcctgtccgggttc
 1-5tRNA-Leu(tag)[63707,63781]
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 1-7tRNA-Gln(ctg)[64131,64205]
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 caggttcgactcctgggtgggcagc
 1-8tRNA-Lys(ctt)[64215,64288]
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 1-9tRNA-Pyl(cta)[65432,65524]
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 gctgttaacgaggtcacgcaggttcgacccctgctgggggagc

1-10tRNA-Lys(ttt)c[65529,65602]
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gggttcgatccccggcgcggtac

>MF140406.1 Mycobacterium phage DARTH, complete genome
1-1tRNA-Trp(cca)[812,887]
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aggttcgactcctgcggagcccgcga

>MF140408.1 Mycobacterium phage DismalFunk, complete genome
1-1tRNA-Arg(gcg)[665,757]
caccgcttagcgaggttcgcgccacgtcattgcgccgacggcatcgtg
tcgacggcctggcgtcggtgtgtgcgacgtgcgcggcgatgg

>MF140410.1 Mycobacterium phage Et2Brutus, complete genome
1-1tRNA-Trp(cca)[6118,6193]
gcgttcctagctcaattggtagagcagcgggtctccaaagccggttc
aggttcgagccctggggaacgtgcca

>MF140412.1 Mycobacterium phage Jeckyll, complete genome
1-1tRNA-Trp(cca)[1053,1126]
gggtgtgtagctcaatcggtagagcagcgggtctccaaagccggttcg
acgttcgagtcgtgccgcggcgc

>MF140413.1 Mycobacterium phage Kingsolomon, complete genome
1-1tRNA-Tyr(gta)[39564,39647]
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tcggcttcgggggttcaattccctctgccacac

1-2tRNA-Thr(cgt)[62901,62973]
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ggttcgattccgttagtggtc

1-3tRNA-Pro(tgg)[63324,63396]
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ggttcgactccctggttccgac

1-4tRNA-Trp(cca)[63739,63812]
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aggttcaagtcctgtccgggttc

1-5tRNA-Leu(tag)[63813,63887]
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ggagttcgactctccccggaactac

1-6tRNA-His(gtg)[63888,63957]
gctaagtagcttaattggtaaagccccggtgtggtccggcgatcacgg
ttcaactccgtgcttaagcc

1-7tRNA-Gln(ctg)[64237,64311]
tgcccgtagcacaattggcagttgcgtcgcgtctgaacgcagaggttc
caggttcgactcctgggtgggcagc

1-8tRNA-Lys(ctt)[64321,64394]
gcgtcggttagctcagttggtagagcaggcactcttaatgctcgggtcgg
gggttcaagtcctcacggcgac

1-9tRNA-Pyl(cta)[65537,65629]
tgctcaaatggtagggccgttcccctgtcatctaaaggcaggatgcctc
gctgttaacgaggtcacgcaggttcgacccctgctgggggagc
1-10tRNA-Lys(ttt)c[65634,65707]
gccgcgctagctcagttggtagagcagctgacttttaacagcgggtccg
gggttcgatccccggcgcgttac

>MF140414.1 Mycobacterium phage Krypton555, complete genome

1-1tRNA-Tyr(gta)[39801,39884]
gtggcgaaggtaactgctggtttgttacacctgctaaagcaggcgt
tcggcttcgggggttaattccctctcgcacac
1-2tRNA-Thr(cgt)[63180,63252]
gccaccttagctcaggggtagagcagcgccttcgtaacgcgcaggtcaac
ggttcgattccgttaggtggctc
1-3tRNA-Pro(tgg)[63599,63673]
ctggtttagcgcagcttggtagcgcgcctgattggattcagggggtcg
gaggttcaaatccttcagccagac
1-4tRNA-Gly(tcc)[64014,64088]
gcgctagctacccctgttggcggggtgcctgcctccaagcaggatcacg
cgggttcgattcctgtctagtctc
1-5tRNA-Trp(cca)[64144,64217]
agctcggtagctcaactggtagagcagtggtctccaaagccaccggttgc
aggttcgactcctgtccgggttc
1-6tRNA-Leu(tag)[64218,64292]
ggttcgtaggcaaactggcaaagccgtctgacttagaatcaggtgtttg
ggagttcgactctccccggaactac
1-7tRNA-His(gtg)[64293,64362]
gctaagtagcttaatggtaaagccccggttggtccgggcgatcacgg
ttcaactccgtgcttaagcc
1-8tRNA-Gln(ctg)[64644,64719]
tgcccgtagcacaatttggcagttgcgcccggtctgaaccgggaggtt
ccaggttcgactcctgggtgggcagc
1-9tRNA-Lys(ctt)[64731,64804]
gcgtcgtagctcagttggtagagcagccgactcttaacggcgggtcgg
gggttcaagtccctcacggcgac
1-10tRNA-Asn(gtt)[65933,66005]
tcccctgtcatttaaccggcaggatgcctcgctgttaacaggtcgtgca
ggttcgatccctgctgggggagc
1-11tRNA-Lys(ttt)c[66010,66083]
gccgcgctagctcagttggtagagcagctgacttttaacagcgggtccg
gggttcgatccccggcgcgttac

>MF140416.1 Mycobacterium phage LastHope, complete genome

1-1tRNA-Trp(cca)[1015,1088]
gggtgtgtagctcaatcggtagagcagcgggtctccaaagccgccggttgc
acgttcgagtcgtgccgcgccgc

>MF140421.1 Mycobacterium phage Nicholas, complete genome

1-1tRNA-Tyr(gta)[39564,39647]
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>MF140422.1 Mycobacterium phage Nicholasp3, complete genome

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1-3tRNA-Trp(cca)[63343,63416]
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1-4tRNA-Tyr(gta)[63527,63609]
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 1-2tRNA-Ile(gat)c[981,1056]

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1-5tRNA-Gln(ttg)c[1986,2061]
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1-22tRNA-Ser(gct)c[9958,10046]
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1-24tRNA-Met(cat)c[109359,109434]
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1-25tRNA-Ile(gat)c[109531,109607]
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1-27tRNA-Gln(ttg)c[110776,110851]
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>MF155946.1 Streptomyces phage Mildred21, complete genome

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1-3tRNA-Gln(ctg)[71730,71802]
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1-4tRNA-Trp(cca)[72009,72080]

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>MF347636.1 Streptomyces phage NootNoot, complete genome
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>MF347637.1 Streptomyces phage Paradiddles, complete genome

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1-41tRNA-Val(gac)[106910,106981]

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1-44tRNA-Gln(ttg)[117530,117610]
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>MF377440.1 Mycobacterium phage Bella96, complete genome
1-1tRNA-Trp(cca)[964,1037]
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1-4tRNA-Ala(cgc)[58532,58604]
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1-7tRNA-Pro(tgg)[59125,59197]
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1-8tRNA-Phe(gaa)[59736,59811]
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1-9tRNA-Met(cat)[59951,60022]
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1-10tRNA-Arg(acg)[60292,60370]
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 1-22tRNA-Glu(ctc)[61963,62034]
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>MF537628.1 Rhodococcus phage Bonanza, complete genome

1-1tRNA-Asn(gtt)[1503,1576]
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 1-3tRNA-Trp(cca)[1702,1776]
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>MF189179.1 Rhodococcus phage Yoncess, complete genome

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 >MF472896.1 Mycobacterium phage JoshKayV, complete genome
 1–1tRNA–Gln(ctg)[4810,4886]
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 >MF472895.1 Mycobacterium phage Kimona, complete genome
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 1–2tRNA–Tyr(gta)[1560,1644]
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 >MF472893.1 Mycobacterium phage MissWhite, complete genome
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 1–2tRNA–Tyr(gta)[4278,4362]
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 >MF472892.1 Mycobacterium phage TreyKay, complete genome
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 >MF668282.1 Gordonia phage ShayRa, complete genome
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1-3tRNA-Gln(ctg)[5594,5666]
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>MF773750.1 Mycobacterium phage OKCentral2016, complete genome
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>GQ979703.1 Lactococcus lactis phage p2, complete genome
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>GQ303265.1 Mycobacterium phage Pumpkin, complete genome
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 1-2tRNA-Gly(tcc)[62342,62414]
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>FJ848884.1 Lactococcus phage CB19, complete genome
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>FJ848885.1 Lactococcus phage CB20, complete genome
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>GQ478085.1 Enterococcus phage phiFL2B, complete genome
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 1-2tRNA-Met(cat)[35911,35984]
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>GQ478087.1 Enterococcus phage phiFL3B, complete genome
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>JF704105.1 Mycobacterium phage Adephagia, complete sequence
 1-1tRNA-Trp(cca)[1003,1076]
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>JF704107.1 Mycobacterium virus George, complete genome

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>JF704097.1 Mycobacterium virus Gladiator, complete genome

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1-2tRNA-Trp(cca)[5472,5545]

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aggttcgagtcctggggagcgtgc

1-3tRNA-Gln(ctg)[5587,5659]

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>JF704108.1 Mycobacterium phage JoeDirt, complete sequence

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1-2tRNA-Thr(cgt)[61883,61957]

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1-3tRNA-Lys(ctt)[62244,62317]

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1-4tRNA-Tyr(gta)[62328,62411]

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1-9tRNA-Lys(ttt)[64823,64896]

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>JF704110.1 Mycobacterium virus Packman, complete genome

1-tRNA-Glu(ctc)[5906,5978]

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1-11tRNA-Lys(ttt)[67262,67336]
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>JF704098.1 Mycobacterium virus JHC117, complete genome

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>KY114934.1 Salmonella phage SP01, complete genome

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1-16tRNA-Ser(tga)[87634,87723]
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1-17tRNA-His(gtg)[88288,88364]

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1-18tRNA-Gln(ctg)[88826,88899]
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tggtcgaccccgagcactccagc
1-19tRNA-Gln(ttg)[88908,88983]
tggagagtagtgaacggtagcacacggccttgactccgttaatggt
aggttcgattcctccttctccagcca
1-20tRNA-Thr(tgt)[89444,89530]
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aatcccggtgcaggttcgaatcctgcgcccagcacca
1-21tRNA-Ile(gat)[90086,90162]
acttcgtagcttagcgatctaaagcactcggctgataactgagagatcg
ggggtttaaatccctcccggagtacca
1-22tRNA-Met(cat)[90259,90334]
agttagttggcagagtgggtatgcacctccttcatacggagcgactacag
tggttcaaatccactactaactacca

>KC579452.1 Enterobacteriophage phiKP26, complete genome

1-1tRNA-Arg(cct)[2921,2996]
gttctgctggcgtaacaggataacgcagagacctcctaagtctcagttac
tggttcgagtcagtcggaacacca

>MF185728.1 Mycobacterium phage Finemlucis, complete genome

1-1tRNA-Thr(cgt)[63805,63878]
gccaccttagctcagttggtagagcagccccttcgtaacgggcaggtcag
cggttcgactccgctaggtggctc
1-2tRNA-Pro(tgg)[64100,64175]
cggcccaaggtgaatggcttgcattgaggcgtttggatcgccggggttcc
ctgttcgactcggggtgggcccacca
1-3tRNA-Trp(cca)[64786,64859]
agcaggaggagcacgattggttgtagcagcgattccaacccgcaggttgc
cggttcgaccccggtcctcgttgc
1-4tRNA-Leu(tag)[64881,64955]
ggtcccgtagcccaattggcagaggcgaggttttaggtacctgtcagtg
tgcgttcgagtcgcaccgggaccac
1-5tRNA-His(gtg)[64955,65027]
cgcgaggtagcttaagtagtaaagcccccgactgtgactcgggtgattcg
ggtgcaagtcccggcctgtcgcc
1-6tRNA-Gln(ctg)[65030,65105]
tggccgtagcaccaattaggcagttgcgcccgaatctgactccggaggtt
ccaggttcgattcctgggtggccagc
1-7tRNA-Gly(tcc)[65245,65319]
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cgtgttcgattcacgtctagcacac
1-8tRNA-Lys(ctt)[65355,65430]

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gggttcgactccctcacgcgtacca
1-9tRNA-Ser(tga)[65432,65521]
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gccgttatggagcttggggttcgatccctctgctctccgc
1-10tRNA-Cys(gca)[66615,66686]
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gttcgattcgcggggacggctc
1-11tRNA-Asn(gtt)[67008,67081]
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tgggtcaggtccacccgttgagc
1-12tRNA-Lys(ttt)c[67275,67349]
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aggttcgatccctagtgggggcacc

>MF919520.1 *Gordonia* phage Lozinak, complete genome

1-2tRNA-Trp(cca)[6303,6376]
acggacgtagctcaactggtagagcagcggtctccaaaaccgcaggttgc
aggttcaagtctctgccggccgtgc
1-3tRNA-Tyr(gta)[6442,6524]
gtgggtgacacaccaatggtggtgtagcgggctgtaacccgtggcggtc
tacgcgggcaggttcgatccctgccaccacac
1-4tRNA-Ser(cga)[6692,6775]
ggagggatgcccatggtgggcacgcggtgcgaataccgtataggtta
gccattccgggagttcgattcttctaccctccgc
1-5tRNA-Ser(gct)[6856,6939]
ggcgagttatccagctctgggactgggccccgttgctagcggacgcgcatac
cctgggtgtgaggttcgattcctcagctcggcgc
1-6tRNA-Asn(gtt)[7382,7457]
tcgggtgtagctcaatcggcagagcgtcggctgtaaccgagaggttga
aggttcgacccttccaccggagcca
1-7tRNA-Lys(ctt)[8009,8084]
gcctctgtagctcagttggttagagaaccgcctttaagcggtggtgc
gcaggttcgaatccttcgggggcac

>MF919504.1 *Mycobacterium* phage DmpstrDiver, complete genome

1-1tRNA-Gly(tcc)[93735,93807]
gcgcttggtcgaattggaaagactcctggctccaccaggttatgca
ggttcgagtcctgtcgcgcgctc

>MF919506.1 *Mycobacterium* phage FireRed, complete genome

1-1tRNA-Arg(cct)[63278,63361]
atggcccgtagctcagtcaggtagagcagccttggcccttcgggcttgg
ttcgtccccggttcaaatccgggcgggccttgcc
1-2tRNA-Gly(tcc)[63364,63436]
gcgcccgtggtcgaattggaaagactcctggcttccaccaggttatgca
ggttcgagtcctgtcgggcgctc

>MF919512.1 Mycobacterium phage Klein, complete genome
1-tRNA-Gly(tcc)[93720,93792]
gcgcttgtggtcagttggaaagactcctggctccacccaggttatgca
ggttcgagtcctgtcgagcgctc

>MF919525.1 Mycobacterium phage Murica, complete genome
1-tRNA-Arg(cct)[64538,64621]
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ttcgtccccggttcaaatccgggcgggccttgcc
1-2tRNA-Gly(tcc)[64624,64696]
gcgcccgtggtcgaattggaaagactcctggctccacccaggttatgca
ggttcgagtcctgtcgggcgctc

>MF919529.1 Mycobacterium phage Sassay, complete genome
1-tRNA-Arg(cct)[61161,61244]
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ttcgtccccggttcaaatccgggcgggccttgcc
1-2tRNA-Gly(tcc)[61247,61319]
gcgcccgtggtcgaattggaaagactcctggctccacccaggttatgca
ggttcgagtcctgtcgggcgctc

>MF919535.1 Mycobacterium phage Terminus, complete genome
1-tRNA-Arg(cct)[63835,63918]
atggcccgtagctcagtcaggtagagcagccttgccccttgcgggcttgg
ttcgtccccggttcaaatccgggcgggccttgcc
1-2tRNA-Gly(tcc)[63921,63993]
gcgcccgtggtcgaattggaaagactcctggctccacccaggttatgca
ggttcgagtcctgtcgggcgctc

>MF919536.1 Mycobacterium phage TipsytheTRex, complete genome
1-tRNA-Trp(cca)[4183,4256]
gtacacgtagctcaatcggtagagcagcggctccaaagccgccggttcc
aggttcgactcctggcgttatgc

>MF919538.1 Mycobacterium phage Updawg, complete genome
1-tRNA-Gln(ctg)[4930,5004]
tccccgttcgtctaagcggcaagacaccgggttctgccccggcaatcga
ggttcgagtccttgatggggagcca

>MF919540.1 Mycobacterium phage Willez, complete genome
1-tRNA-Arg(cct)[61161,61244]
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ttcgtccccggttcaaatccgggcgggccttgcc
1-2tRNA-Gly(tcc)[61247,61319]
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ggttcgagtcctgtcgggcgctc

>MF919541.1 Mycobacterium phage YassJohnny, complete genome
1-tRNA-Arg(cct)[61182,61265]
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ttcgtccccggttcaaatccgggcgggccttgcc

1-2tRNA-Gly(tcc)[61268,61340]
gcgcccgtggcgaattggaaagactcctggctccacccaggttatgca
ggttcgagtcctgtcgggcgctc

>KT825490.1 Escherichia phage C119, complete genome
1-1tRNA-Arg(cct)[42465,42540]
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tggttcgagtcagtcggaacacca

>KC661272.1 Mycobacterium phage Methuselah, complete genome
1-1tRNA-Asn(gtt)[3921,3996]
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aggttcgagtcctccagatcagcca
1-2tRNA-Trp(cca)[4037,4111]
aggcacgtagctcaattggtcagagcagcggctcctcaaagccgcccgtg
caggttcgagtcctgccgtgtctgc
1-3tRNA-Leu(cag)[4146,4220]
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agggttcgactccctcccgagctac

>KF188414.1 Mycobacterium phage ABCat, complete genome
1-1tRNA-Arg(cct)[63183,63266]
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ttcgtcccggttcaaaccggcgccgttgc
1-2tRNA-Gly(tcc)[63269,63341]
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ggttcgagtcctgtcgggcgctc

>KT359365.1 Mycobacterium phage DaHudson, complete genome
1-1tRNA-Asn(gtt)[3832,3907]
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1-2tRNA-Trp(cca)[3948,4022]
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caggttcgagtcctgccgtgtctgc
1-3tRNA-Leu(cag)[4057,4131]
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agggttcgactccctcccgagctac

>KT375356.1 Rhodococcus phage Rhodalysa, complete genome
1-1tRNA-Asn(gtt)[1503,1576]
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aggttcgagtccttctacgtgagc
1-3tRNA-Trp(cca)[1702,1776]
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ggggttcgagtcctccgggcctgc

>KT381277.1 Mycobacterium phage Wooldri, complete genome
1-1tRNA-Asn(gtt)[3751,3826]
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aggttcgagtcctcccagatcagcca
 1–2tRNA–Trp(cca)[3867,3941]
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 caggttcgagtcctgccgtgtctgc
 1–3tRNA–Leu(cag)[3976,4050]
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 agggttcgactccctcccagctac
 >KT59213.1 Rhodococcus phage TWAMP, complete genome
 1–1tRNA–Asn(gtt)[1503,1576]
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 aggttcgagtccttctacgtgagc
 1–3tRNA–Trp(cca)[1702,1776]
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 >KT990218.1 Rhodococcus phage Lillie, complete genome
 1–1tRNA–Asn(gtt)[1503,1576]
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 1–3tRNA–Trp(cca)[1702,1776]
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 >KU695582.1 Mycobacterium phage McFly, complete genome
 1–1tRNA–Asn(gtt)[5402,5474]
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 ggttcgagtccttccatgtcagc
 1–2tRNA–Trp(cca)[5479,5552]
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 1–3tRNA–Gln(ctg)[5594,5666]
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 >KU865303.1 Mycobacterium phage TeardropMSU, complete genome
 1–1tRNA–Arg(cct)[61937,62020]
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 ttcgtccccgggtcaaatccggcgggccttgcc
 1–2tRNA–Gly(tcc)[62023,62095]
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 >KU935726.1 Mycobacterium phage Xerxes, complete genome
 1–1tRNA–Thr(ggt)[28768,28845]
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 >KU935730.1 Mycobacterium phage Pipsqueaks, complete genome
 1–1tRNA–Thr(ggt)[28748,28825]

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 >KU985096.1 Mycobacterium phage Kazan, complete genome
 1–1tRNA–Asn(gtt)[5408,5480]
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 1–2tRNA–Trp(cca)[5485,5558]
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 aggttcgagtcctggggagcgtgc
 1–3tRNA–Gln(ctg)[5600,5672]
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 ggttcgagtccttgatggggagc
 >KU998254.1 Gordonia phage Kampe, complete genome
 1–2tRNA–Leu(taa)c[70491,70577]
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 ttatggctttatcggttcaagtcgggtcaggggtac
 >KU998252.1 Gordonia phage PatrickStar, complete genome
 1–2tRNA–Leu(taa)c[70491,70577]
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 >KX523125.1 Mycobacterium phage BuzzBuzz, complete genome
 1–1tRNA–Asn(gtt)[3922,3997]
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 1–2tRNA–Trp(cca)[4038,4112]
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 1–3tRNA–Leu(cag)[4147,4221]
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 >GQ478082.1 Enterococcus phage phiFL1B, complete genome
 1–1tRNA–Asn(gtt)[14841,14913]
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 1–2tRNA–Met(cat)[38073,38146]
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 >GQ478083.1 Enterococcus phage phiFL1C, complete genome
 1–1tRNA–Asn(gtt)[14575,14647]
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 ggttcgagtcctcgttattccag
 1–2tRNA–Met(cat)[37804,37877]
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 taggttcgagtcctgtatggcca

>KR063281.1 *Gordonia* phage GMA2, complete genome
2-1tRNA-Arg(tct)c[57692,57765]
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cgggttcgagtcggctgagggcac
2-2tRNA-Thr(tgt)c[57883,57955]
gccccattagcatattggcagatgcaccgctcttgtaaagcggatacagg
agttcgattctcctatgggctc
2-3tRNA-Glu(ttc)c[58076,58153]
gccggagttgctctgctggtaggggcaactggattttcactccagtaag
acgcgggttcgattcccgtctccgtac
2-4tRNA-Ser(gct)c[58157,58240]
ggtgagttatcttgactgggtcaaggctccgttgctagcgaagcgcgtc
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2-5tRNA-Ser(tga)c[58319,58403]
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atccattccgggggttcgactcctctactctccgc
2-6tRNA-Lys(ctt)c[58406,58478]
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ggttcaaactcctagtgaggacac
2-7tRNA-Lys(ttt)c[58481,58552]
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2-8tRNA-Glu(ctc)c[58733,58806]
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gggttcgattcccgtatgcggtac
2-9tRNA-Leu(tag)c[58894,58978]
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2-10tRNA-Asp(gtc)c[58993,59068]
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acgggttcaaataccggttattggcgc
2-11tRNA-Tyr(gta)c[59077,59160]
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2-12tRNA-Pro(tgg)c[59301,59375]
cgggatgtagttcaactggtagagcacttgcttgggtgcaagatgttg
caggttcaaatcctgtcatcccgac
2-13tRNA-Ile(gat)c[59483,59557]
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2-14tRNA-Met(cat)c[59632,59706]
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cgggttcaaatcccggttcgcgccac
2-15tRNA-Asn(gtt)c[59744,59816]

tacccggtagctcaatggcagagcgctagactgttaatctggtggtgaa
ggttcgagtccttctcgggtagc

2-16tRNA-Gln(ttg)c[59821,59895]

tgcccgctagcacaattggtagttgcgccgcgttggtcgcggatgttc
caggttcgagtcctgggtgggcagc

2-17tRNA-Trp(cca)c[60083,60154]

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gttcgattcctaccgtccgtgc

>KY629563.1 *Sphingobium* phage Lacusarx, complete genome

3-1tRNA-Pro(cgg)[66918,66995]

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3-2tRNA-Val(tac)[67270,67344]

tggggattagctcagcggtagagcagccgtttacatgcggccggtcggc
ggttcgatcccgatccctaacca

3-3tRNA-Val(gac)[67347,67421]

gcctcgttagctcagcggtagagcgtgctatgacatggcagatgacggt
ggtcaaaccatcacgaggcacca

3-4tRNA-Ala(tgc)[67694,67768]

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ggttcgactccgacctcaccacca

3-5tRNA-Asn(gtt)[67903,67984]

ttggtagtgacagagtggtaatgtccccggctgttaaccggtgacccgaa
aggcgggtggttcgatcccaccctaccgaacca

3-6tRNA-Ile(gat)[67986,68062]

agcgggttagctcagcccggtagagcaaccgaccgataatcggtgtgtcg
caggttcaaactctgccatcgctacca

3-7tRNA-Lys(ctt)[68807,68882]

ggatcggtagctcagtaggtagagcaggggattcttactccaaggtgga
cgggttcaagcccgtctcgatcctcca

3-8tRNA-Lys(ttt)[68955,69030]

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cgggttcaagcccgaccggctacca

3-9tRNA-Gly(gcc)[69039,69113]

gcaggcgtcgttcagacggtaggacacctccttgccatggaggagacgcg
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3-10tRNA-Asp(gtc)[69126,69202]

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cgggttcaagtccgtcagaaccgcca

3-11tRNA-Glu(ctc)[69204,69278]

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ggttcgattcccctacgcctacca

3-12tRNA-Glu(ttc)[69287,69362]

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gggtttgaatcccgttggcgctcca
 3-13tRNA-Gly(tcc)[69389,69463]
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 3-14tRNA-Arg(acg)[69473,69548]
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 3-15tRNA-Phe(gaa)[69554,69628]
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 3-16tRNA-Ser(cga)[70140,70228]
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 3-20tRNA-His(gtg)[70676,70751]
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 cgggttcgagcccccgccgtcacccc
 3-21tRNA-Gln(ctg)[70770,70843]
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 3-23tRNA-Cys(gca)[70954,71027]
 gccgccttggccgagtggaaggctccgattgcaaccccgcatctccc
 gttcgatccgggaaggcggtcca
 3-24tRNA-Trp(cca)[71032,71107]
 atctcaaagcattaagggcgatgcaccggtctccaaaaccggcaagct
 gggttcgagtcttagtgaggtgcca

>KT870145.1 Roseobacter phage DSS3P8, complete genome

4-1tRNA-Glu(ttc)[6433,6509]
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 cgggttcgaaacccgcatcggcacca
 4-2tRNA-Glu(ctc)[6542,6618]
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4-3tRNA-Met(cat)[7058,7132]
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4-4tRNA-Pro(tgg)[7206,7281]
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cggttcgagaccgaccacctgacca
4-5tRNA-Met(cat)[7712,7787]
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4-6tRNA-Tyr(gta)[11149,11235]
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4-7tRNA-Ala(cgc)[11429,11515]
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4-8tRNA-Val(tac)[13913,13988]
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4-9tRNA-Val(gac)[14102,14176]
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4-10tRNA-Ala(tgc)[14314,14389]
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4-11tRNA-Ala(tgc)[14399,14472]
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gttcgattccccggtgctccacca
4-12tRNA-Lys(ctt)[15211,15298]
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4-13tRNA-Asn(gtt)[15304,15381]
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4-14tRNA-Cys(gca)[15385,15458]
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4-15tRNA-His(gtg)[15464,15539]
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4-16tRNA-Asp(gtc)[15544,15617]
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4-17tRNA-Gly(tcc)[16689,16762]
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 4-23tRNA-Leu(gag)[17462,17545]
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 4-25tRNA-Leu(caa)[17638,17713]
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 4-27tRNA-Thr(ggt)[18147,18221]
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 4-28tRNA-Arg(tct)[20440,20515]
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 ggtcaatccccgccatcctgacca
 4-31tRNA-Phe(gaa)[55152,55227]
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>KX925554.1 Streptomyces phage BRock, complete genome

5-1tRNA-Tyr(gta)c[95476,95558]
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5-2tRNA-His(gtg)c[95711,95784]
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gggttcgaatcccgcccttcctc
5-3tRNA-Ile(gat)c[96139,96222]
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aaacgtacgtaggttcaatcctaccgcgtcgac
5-4tRNA-Ser(gga)c[96433,96518]
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5-5tRNA-Ser(gct)c[96606,96695]
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5-7tRNA-Val(tac)c[97297,97369]
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5-8tRNA-Arg(tct)c[97773,97846]
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5-9tRNA-Arg(acg)c[98530,98602]
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5-10tRNA-Lys(ttt)c[101007,101080]
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5-13tRNA-Asn(gtt)c[103903,103975]
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5-15tRNA-Leu(tag)c[104257,104342]
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 5–17tRNA–Thr(ggt)c[104606,104681]
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 5–18tRNA–Thr(cgt)c[104781,104852]
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 gttcgattcctcagtggggctc
 5–19tRNA–Thr(tgt)c[104889,104962]
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 5–21tRNA–Glu(ctc)c[105631,105704]
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 5–23tRNA–Gln(ttg)c[105988,106061]
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 5–28tRNA–Phe(gaa)c[107014,107086]
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 5–29tRNA–Pro(tgg)c[107164,107238]
 ccggatatcgtctagtttggttaaggcgcctgcttgggagcaggatatcg
 ggagttcaatctctctatccggac

*Virgaviridae

>L07937.1 Soil-borne wheat mosaic virus (SBWMV) complete RNA
2-tRNA-Val(cac)[3505,3575]
gatgaggtgcgactggtggcgcggctgctatcacacagcagctaggagg
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