

[Supplementary Materials]

**Table S1.** *Arabidopsis* auxin pathway related genes and Pfam annotation of studied genes

**Table S2.** List of primer for qRT-PCR

**Table S3.** Transcriptome sequence of in *R. officinalis* auxin pathway related genes.

**Table S1.** *Arabidopsis* auxin pathway related genes and Pfam annotation of studied genes.

Name	<i>Arabidopsis</i> Locus ID	Discription	Pfam
YUC1	AT4G32540	Flavin Monooxygenase-Like Enzyme	Pyr_redox_3 (PF13738)
AMI1	AT1G08980	AMIDASE-LIKE PROTEIN 1	Amidase (PF01425)
CYP79B2	AT4G39950	CYTOCHROME P450, FAMILY 79, SUBFAMILY B	p450 (PF00067)
AO1	AT5G20960	ALDEHYDE OXIDASE 1	Ald_Xan_dh_C2 (PF02738)
UGT74B1	AT1G24100	UDP-GLUCOSYL TRANSFERASE 74B1	UDPGT (PF00201)
NIT1	AT3G44310	A. THALIANA NITRILASE 1	CN_hydrolase (PF00795)
TGG1	AT5G26000	member of Glycoside Hydrolase Family 1	Glyco_hydro_1 (PF00232)
TAA1	AT1G70560	involved in the shade-induced production of indole-3-pyruvate (IPA)	Alliinase_C (PF04864)
SUR1	AT2G20610	ABERRANT LATERAL ROOT FORMATION 1	Aminotran_1_2 (PF00155)
VAS1	AT1G80360	It functions downstream of TAA1/SAV3 but upstream of YUCs to negatively modulate IAA biosynthesis directly by altering the 3-IPA pool.	Aminotran_1_2 (PF00155)
YUC6	AT5G25620	Encodes a member of a family of flavin monooxygenases with an important role in auxin biosynthesis	FMO-like (PF00743)
UBQ9	AT5G37640	Internal control	ubiquitin (PF00240)

**Table S2.** List of primer for qRT-PCR

Name	Sequence
UBQ9_F	AAGAGTCAACCTTGCACTTGGT
UBQ9_R	ATATCTTTGCGCTCTCCACCTC
SUR1_F	TCTTACCTTTGGTAGCAACCCC
SUR1_R	GGATACCATCAGGGTCGTTTGT
YUC6_F	CGCTTGTGGTTAGGGATACAGT
YUC6_R	GCCACGATAAGACGAGCAAAAA
VAS1_F	AACTCCTCAAGGTGCAAGACAA
VAS1_R	TTTGAACCTGACTGGTGACCCA
CYP79B_F	TGCCTTACTTAGACGCCATTGT
CYP79B_R	AACACCGTCGTCCCTTTTGATA
AMI1_F	TCTATCAACCGCCTTGAGATCG
AMI1_R	CCGTTGATCTGATAGCTTCCCA
TGG1_F	AGCCATGGACTTTATGCTTGGGA
TGG1_R	CCCTATGAAGTCAAAGGACCCC
NIT1_F	TGATTCAAGGGATGTCTGGCAA
NIT1_R	GCACCGGAGAAAACATAATCCG
UGT74B1_F	GGACGGTAGAATCGAAGGAGAC
UGT74B1_R	TGTAGATCACTGATTCCTGCGG
TAA1_F	GGGCTCTTGTGAAGGATCAAGA
TAA1_R	TGCTCATGGGAGTCTGATAGGA
YUC1_F	GCCGGGAATAAGCTGCATAAAG
YUC1_R	AATCGTCTCCCTTAAGCCACTG
AO1_F	TGGCTGAAGCTGATCACAAGAT
AO1_R	GCAAATTCAGGGGATTGACTCG

**Table S3.** Transcriptome sequence of in *R. officinalis* auxin pathway related genes.

Name	Sequence
UBQ9	<p>&gt;UBQ9-TRINITY_DN3285_c5_g1::TRINITY_DN3285_c5_g1_i26::g.107817::m.107817</p> <p>ATGCAGATCTTTGTCAAGACCCTTACAGGGAAAACCATCACTCTCGAGGTTGAGAGCTCCGACACA  ATTGACAATGTGAAGGCCAAGATCCAGGACAAGGAGGGCATTCCCCCGGATCAGCAGAGGTTGATC  TTCGCCGGCAAGCAGCTCGAGGATGGCCGCACCCTTGCCGACTACAACATCCAGAAGGAATCCACC  CTCCATTTGGTGCTTAGGCTGCGTGGTGGCATGCAGATCTTTGTCAAGACTCTTACCGGAAAAACCAT  CACCTTGGAGGTCGAGAGCTCTGACACCATTGACAACGTGAAGGCTAAGATCCAGGACAAGGAGG  GCATCCCCCGGACCAGCAGAGGCTCATCTTCGCTGGAAGCAGCTCGAAGACGGCCGCACACTAG  CTGACTACAACATCCAGAAAGAGTCAACCTTGCACTTGGTCTCAGGCTACGAGGTGGTATGCAGAT  TTTTGTAAAGACCCTTACCGGAAAGACTATCACTTTGGAGGTGGAGAGCGCAAAGATATCCGACACC  ATTGACAATGTCAAGGCTAAGATTCAAGATAAGGAAGGACAGGACAAGGAAGGCATTCTCCGGAT  CAGCAGAGGCTGATATTTGCCGAAAAACAACCTCGAGGATGGTAGAACCTTGCTGATTACAATATCC  AGAAAGAATCTACTCTCCATCTTGTCTCCGTCTTCGTGGTGAATGCAGATATTTGTGAAAACACTT  ACGGGAAAGACCATCACTCTAGAGGTTGAGAGCTCTGACACCATTGACAACGTAAAGGCAAAGAT  ACAGGACAAGGAAGGGATTCTCCGGATCAGCAGAGGCTGATATTTGCCGAAAAATAA</p>
SUR1	<p>&gt;SUR1-TRINITY_DN7627_c0_g1::TRINITY_DN7627_c0_g1_i9::g.260163::m.260163</p> <p>ATGGAGCACGGAGGTTTCGGAGGCGGCAGGGTGGCGTTTCGAGAGGAACGAGCTGCTCACACTGGC  CGGAGCAGTTACCGTTAGGGGCGTGCTCAACATGGTCATGTCAAATCTCGAAGGAAACGATGCCAG  ACCCGTTATTCCGCTCGGCCACGGCGACCCCTCCGCCTTCCCTTCCCTCCGCAACCACACCTTTTGGCG  AGGAAGCCGTCTGCACCGCCGTCCGCTCCGCCAAGTTCACGGTTACTCTCCACCGTTGGTATCCC  CGCGCTCGCAGCGCCGTAGCAGATTACCTTTCTAAAGACCTTCCTTACAAGTTATCACCCGATGATG  TTTTCTGACCATTGGATGCACCCAAGCATTAGAAGCCATTGTCACTGTCTTGTCTGCCGTCCCGTGCT  AACCTTCTGCTTCCAAGGCCAGGATTTCCTTACTACGAGGCCAGAGCTGGCTTTTCTACTCTTGAAGT  CCGTCACTTTGATCTTATCCCGGAACAAGATTGGGAAGTGGATTGGCTTCGGTTGAAGCTTTGGCCG  ATGAAAACACAGTTGCAATGGTTATTATCAATCCAGGCAATCCGTGTGGAAATGTTTCAAGTATGA  ACACTTGAAAAAGGTCGCGGAGACAGCAAGAAAGCTTGAATCTTAGTGATCGCGGATGAAGTGTA  TGACCATCTTACCTTTGGTAGCAACCCCTTGTCCCGATGGGGGTCTTTCATCAATTGCCCCGATTAT  CACTCTTGGATCAATATCTAAGAGATGGATCGTCCCGGTTGGAGACTTGGCTGGCTTGTCAAAAC  GACCCTGATGGTATCCTTACTAAACATGGGATCGTTGACAGCATTAAAGGTTTCTGAATATTACCTC  TGACCCAGCGACCTTTATGCAGGGGGCAGTTCACAGATTCTTGAGAATACTCCAGCCGACTTCTTT  GAGAAAATTGTAAGTACGCTTAGAGAAAGTGCAGGCATATGCTATGGACACAGCAGAGAAATCCCC  TGCATAACTTGCCCCAGCAAACCTGAGGGATCCATTGTTTGTATGGTAAAGCTCAATCTGTCTCTCCT  CGATGGAATTAAGGATGACTTGACTTCTGCTGCAAGCTTGCCAAGAGGAATCTGTGGTAGTCCCTC  CCAGGTTTTGCTGTGGGGCTCCAGAATTGGTTACGCATTACGTTTGCCATTGAACCATCATCTCTCGAT  GATGGCTTTCTCAGAATTAAGGCATTCTGTCAAAGGCACGCGAAGAAACAATGA</p>
YUC6	<p>&gt;YUC6-TRINITY_DN40249_c1_g1::TRINITY_DN40249_c1_g1_i4::g.257496::m.257496</p> <p>ATGGAGGGGTTTGGTGGTGACGTGGTGCACACGAGCGGGTACAAGAGCGGCACGGTGTATGAAGG  GAAGAGAGTGCTCGTCGTGCGGTGCGGGAATTCGGCATGGAGGTTTGCTTGGATCTCTGCAATCAC  AATGCGAGACCTTCGCTTGTGGTTAGGGATACAGTGCACATTCTACCACGAGAGATGCTGGGGAGAT  CGACTTTCGGGCTGTCCATGTGGTTGCTAAAGTGGCTGCCCATGCGCCTTGTGACCGGATTTTGTCTC  GTCTTATCGTGGCTCGTACTCGGTGATACCGCCCCGTTTTGGCCTCGACCGGCCTCACTTGGGGCCTCT  CGAGCTCAAGAGCCTCTCCGGGAAAAACCCCGGTTTTAGATGTGCGGAACCCCTTGACAAGATCAAAAG  TGGAGACATCAAGATATGCCCCGGGATCCAAAGACTATGGTATAAATCAGCAGAATTTGTGGATGGA  AGAGTGGAAAAATTATGATGCAATAATCCTAGCAACTGGTTACAAAAGTAATGTACCATGTTGGCTAA  AGAAAAGCGAGATGTTCTGTGAGAAAGATGGGATCCCAAAAAGGCCATACCCGAATTGCTGGAAA  GGCGAGTGTGGGCTATACGCGGTGGGGTTACCAAACGCGGCCTTCTTGGGACATCCATTGATGCCA  AGAACATTGCTGCTGATATTGAGGCCTCTTGAAGGAGCAGCAAACCATCTCGCAGTCCAAATACTC  ACCGAATTTTCATGCAAAAACACCTTTAA</p>
VAS1	<p>&gt;VAS1- TRINITY_DN48214_c0_g1::TRINITY_DN48214_c0_g1_i4::g.78083::m.78083</p> <p>ATGGGTTCTTATGGGATGCTTGCTAAGAGGGCTTTGCTTACTGAAACTCCTGTTATGGTTGAGATGCA  GAAGCTGATCCGAGGCGTGAAAGATTGCGTTTCTCTAGCTCAGGGGGTAGTGTACTGGCTACCACCG  AAGGAGGCACTAGAGAAAGTGAACAACCTTGATGGGAGCCTTCAGTTAGTCGCTATGGTGCCGAT  GAAGGCCTTCCCAGCTGAGAGAGGCCTTAATGAATAAGTTACGGAATGAGAACAAATTAGAGAAA  TCCTCAGTGATGGTAACTGCTGGGGCAAATCAGGCTTTTGTCAATATTGTGCTTACACTATGTGATGC  GCAAGATAGTGTTGTCATGTTGCGGCCATACTACTTCAATTCATACATGTCGTTCCAAATGACTGGAG</p>

	TGACTAACATTCTGGTGGGGCCCCGGTGATCCTGATACCCCTTCATCCAGATGCAGACTGGTTAGAAAA GAAGTTACAAGATACAATACCAACTCCGAAGCTTGTAAGTGTGTAATCCTGGTAATCCGTCGGGA ACCTACATCCCTGCACCTCTTCTTCAGAGGATATCAGATATTTGCAAAAAAGCTGGATGTTGGCTTGT AGTTGACAACACCTACGAGTACTTCATGTACGATGGTCGAAAACACGTGTGCATTGAGGATGATCAC ATAGTCAACATATTTTCTTCTCTAAAGCTTATGGGATGATGGGATGGAGAGTCGGATATATAGCGTAC CCTTCAGAAGTCAAAGGCTTAGCTGAGCAACTCCTCAAGGTGCAAGACAACATTCCCATCTGTGCTT CCATAATATCCCAACAACCTGCGCTTCACTCCCTCAATTTGGGACCGAAATGGGTACCCAGTCAAGT TCAAACCCTCGTTGCCAACAGAGGGCTTCTTATAGACGCGCTGTCCCCATTAGGTAAAACTCGGTT AAAGGTGGAGAAGGCGCGATCTACTTGTGGGCGAAGCTCCCCGACAAGTACGAGGATGACTTTGCG GTCATTAGTTGGCTGGCCAAGAAGCATGGGGTCGCACTGATACCCGGTAGCTCCAGCGGGTGCCCC GGATACGTGAGGATCTCGTTCGGGGGGCTAGTTGAAGAGCAGTGCCGGGAGGCGTCAAAGAGGCTC AAGAAAGGGCTACAACAACCTGGTAGATGAAGGCATGGTTTGA
CYP79B	>CYP79B2-TRINITY_DN122_c2_g2::TRINITY_DN122_c2_g2_i1::g.120149::m.120149 ATGGATTATTTCTGGATACTTTTTGCGTTACTATATGCAGCTGCAGTATCCGTCGTCTCGAAAAATAATC AAAATTCCAAGCCAACCAAAATCGAAAAATCCCACCAGGTCCAAAACCATGGCCTGTGATAGGCAAT TTGAACCTTCTTGGCTCAATCCCACCACATCAAGCCCTTACCTTTTGTCCCAAAAATATGGCGAAAT TATGCAGCTGAAGTTCGGAAGTTTCCGGTAGTGGTTGCATCATCGCCCGAGATGGCCAAACAGTTC CTAAGGGTACATGATGCGAGCTTCGCCTCTAGGCCCTTCTTGCAGTTGGTAAATACACCAGCTACA ATTACTCGGACCTAGTATGGGCCCCATACGGGCCATACTGGCGCCAGATTTCGTAGAAATTTACTTCTGG GAGGTGTTCAGTGCTAAAAAGCTCAAGCTCTACGAGAAGGTACGTGCTGATGAGAGGCAGCGTTTC CTGTCTTCCATACGTGCCCTGGCTGGGAAGCCTATCGTGCTCAAAGATCATCTGTCACGTTACAGTTT GATGACTATATGGAAGATGCTATCAAAAGATGAATATTTAGCGAAACAAAGGGGGGAAACTCTGTT CTAAATATGGATGAATTGCATGAGATGGTGGATGAGTGGTTTATGCTCTCTGGAGTTTCAATATCGG GGATTGGATTCCATGGCTCAGTCCATTCGATCTGCAGGGATACGTAAAGAAGATGAAGGATTTGAAC AAGAAATGGACAAGTTTACAACCTATGTGATCGATGATCATATAGCTAGAAGAGCTGCAGAGAAAA GACGAATGTGCCCCGATGGATTTGTAGACACTTTGCTGCAGATGGCTGAGGATGGTAAGGTTGAAG TTGCGATCACAAGGGATTGTGTGAAGGCACTGATACAGAATTTAATAGTTGGTTCCATGGATACGTCA GCCACAATGATCGAATGGGCAATACACGAAATCTTGAGACAACCGCACATAATTGAAAAGGCGAAA GCAGAGCTAGACAGGGTGATCGGAAGAAGCAGTATGGTAGGAGAAAAACGACTTCTCTCGACTGCCT TACTTAGACGCCATTGTGACGGAGACGTTTCAAGGCTCCATCCAGTAGGCACGATGCTAGCCCCCTCATT ACGCGATACAAGACTGCAACGTGCGAGGCTACGACATATCAAAAGGGACGACGGTGTTTGTCAACG TATGGAGCATAGGCAGGGATCCTAGGGCGTGGGACTCGCCTGAGAAGTTCTCGCCTGAGAGGTTTCT GGGCAAGGAACTGATGTGTTGGGAGGCAATTTGCGTTGCTGCCTTTTGGCTCGGGCAGGCGGATG TGCCCCGGATACAACCTCGGACTTAAGGTTGTTGCAACAACGTTGGCTAATTTGTTGCATGGATTGA CCTGAAACTGATCGATGGCATGAGGCCTCAAGATGTATCGCTCGAAGAAGAGTATGGACTCACCAC GCATCCTAAACACCTCCTTTCCTTACTCATGGAACCTACTTTGCCATCACATCTTTACTAA
AMI1	>AMI1-TRINITY_DN9579_c0_g1::TRINITY_DN9579_c0_g1_i4::g.62111::m.62111 ATGGCTAGCAGCTTATCATCAGTAGCAGTAGCAGATTATGGAGCATTATGGAGAAATCACTCTGCT TCCTCACTCTTCTCTCATGAGCTTCCCCTTTCTGGCCTTAAATTTGCTGTGAAAGACATATTCGACGT GGAGGGTCATGTACGGGTTTTGGGAATCCGGACTGGGCGAGGACTCACTTGGCTGCTACAGAGAC TGCCCCGGCTGTGCGGTCTATGCTTGAGGCAGGTGCAACTTGTGTTGGCAAACTGTGATGGATGAA ATGGCTTACAGCATAAATGGAGAAAATGTGCATTACGGGACTCCAAGAAATCCATGTGCACCAGATA GAGTGCTTGAGGCTCTTCCAGTGGATCTGCTGTGCGAGTTGGAGCAATGCTTGCAGATTTCTCCTTA GGTACTGACACTGGAGGAAGTGTGAGAGTTCCAGCATCATACTGTGGAATCTATGGCTTCCGCCCCCT CTCATGACCTCGTCTCAACATCTGGTGTACATCAATGGCTCAGAGTTTGGACACAGTCGGCTGGTTT GCTAGAGATCCGGTGATCTTGAAGAAGGTGCGAAAAGATTCTGCTACAACCTGCGGGATGATAATCCTA CTACACTTGATCAACTATTGTTGCAGAAGATTGCTTCGACCTCGTAAACATCCCTCCTCATCAGCTC AAAGATGTTCTCACCAGCTCCGTGGAGAAATTATATGGAAGTCAGATAATACGATACATGAATCTAG GGGACTTAATTGAAACCAAACCTCCCAAATCTGAAGGTTTTTATGAACAACAATGTTGGCACACAGA AGGATAATATACCATCATTAGCAGCTCTATCAACCGCCTTGAGATCGCTTCAAAGGCATGAGTTCAAG AGAATCATGGCGAGTGGGTTGAGTCAGTTAAGCCTAGTTTAGGCCCGGCATATACGAACGAGTCT GGGAAGCTATCAGATCAACGGATGAAAATATAGACGTGTGTCGTTCCCTGCGTGGCGAGTTACGTGC AGCTCTCGCTGATCTATTGGGGGATTCCAGGATCCTGGCAATCCCTACGGTACCGGGGCTCCACCG GAGTACAAATGGATCCAACGACACTGGAGAGTTTTCGTGCCAAGGCCTTACGCTTGCTATCAGTAT CCGGCGTGTCCGTTTTGTGCCAGGTGAGCATACCGTTAGGCATGTACAATGATCTCCCGGTTGCTGTT TCTCTGCTGGCGAAACATGGCTCGGATGGATTCTTGCTTAGTTTTGTTGAGACTCTTCACAAAGCTCT CAAAGAGGAGGGCATGCTTCTTGA
TGG1	>TGG1-TRINITY_DN79384_c0_g1::TRINITY_DN79384_c0_g1_i8::g.16615::m.16615

	<p>ATGGCAACTCTAACTCACTCGCTCTATCTTCTCTTAGTCATCGCTCATTCTTAATTTCTGCGAATGCC  ACATCGAGATCCACATGTGACTGCGGCGCCACGTCGTCTTCGTCGATCGGCCGTGGAACCTTTCCAG  AAGGATTTGTCTTCGGGGCAGCAGCATCAGCTTATCAGTACGAGGGTGCTGTAAAGGAAAACGGGA  AAGGGCAGAGCTTGTGGGACAATTTACGCACGTTTATCCAGAAAAGATTAAAGGATCATAGTAATGG  GGACATAGCCATCGATTCTATCATCTGTACAAGGAAGATGTAAGGATTGCAAGAGATTAGGTCTC  GACGCCTATCGAATCTCGATATCATGGCCAAGGATCTTGCCAGGTGGAAGATTGAGGCAGGTGTGA  ATCAAGATGGCATTGACTATTACAACAATCTAATTGACGAACTCCTTGCTAATGGTATAGAGCCTTTT  GTGACCTTACTCCATCTTGACGTTCCCCAAGCTCTACAAGATTATATGGTGGATTCTATCTTCTCAA  ATTGTGGGTGATTTTCTCAACTTTGCAAACCTCGTTTTCAAGCAATTTGGTGACCGTGTCAAGTATTG  GGTCACTATAAACGAACCGTGGACTTTCAGCGTGTATGGCTACGCCTACGGCGTTTTTGACCCGGC  CGATGCTCGGAGTGGCAGGATCTCAATTGTACGGGTGGGGACTCTGCCACGGAGCCGTATATCGTGG  GACACAATCTTCTCTAGGTCAATTCTGCTGTTGTTAATTTGTACCGGGAAAAGTATCAAGTATCGCAG  AAAGGAAAAATCGGTATAGTTTTTGACGATATTGGTTGAGCCGTTTCGATGAGACGAATGAGAAATG  AGAAAGCTAAGGATCGAGCCATGGACTTTATGCTTGGATGGTATATGGAACCACTGACACATGGAAG  CTACCCAGAAAAGTATGAAAATTCGAGTCAAGGAAAGATTACCTAAATTCGAGGAAAATGAGCTTAA  CATGGTTAAGGGGTCTTTGACTTCATAGGGTCAACTACTACGGTGCCATTTATGCGGTGACAAAAC  CTAACTCGACTAGCTGCAGTTACGCGACAGACTCTGAGATGGTGATCACAGGGACCAAAAATGGAA  AGCCAATAGGAGAACAAAGGAAGAAATTCAAGCAAGCTCTACATTTATCCAAAGGGACTTCGCCAAA  TTCTCAAATAATAAAACAAAATTACAATAATCCACAGATTTACATCACGGAAAATGGGCTTGATGA  GGCAAGAAACGACACGTTAGAACTATCCGAAGCCTTACAAGACAACATGAGGAAAGACTACATTC  AGCATCATCTCTGCTGTCTGAGTGAAGCAATTCGGAAGATGATGCAAATGTGAAAGGATATTTGT  ATGGTCATTGGTGGATAATTTGAGTGGGCCGGTGGATTTTCAGTTCGATTCCGACTAAATTATGTGG  ATTATAGAGATGAATTGTTGAGAAGATCCTAAGATTTCTGCCCTTTGGTTCAAGAATTTCTATTGA  AGACAACCTGGTCACAGTGA</p>
NIT1	<p>&gt;NIT1-TRINITY_DN62_c0_g1::TRINITY_DN62_c0_g1_i15::g.155056::m.155056  ATGAGCTCAGTGTCGACGTCATCATCGCCTGCTCCGAACAGTCAAATCTGAATAGAAATCAACGG  CAGAAGAAACAGCAGCAGTTGCTGAGAAGCGCAGAGACATGGCTCTAGTTCCTAATCCTGCTGTTG  ACGACGGCCCTTTGTTTGCCGAGGTGGACATGGGGGCCGACGTCTCCGCTACCACTGTCCGCGCCAC  GGTCGTCCAGGCCGCCACCGTCTTCTATGACACCCCGCCACTCTTGATAAAGCTGAAAAGTTGCTG  GTTGAAGCAGCCTCATATGGTTCTCAGTTAGTTGTGTTTCTGAAGCGTTTCATTGGTGGCTATCCACGT  GGATCAACTTTTCGGTGTTCATTGGTAACCATACAGCCAAGGGTAGAGAGGAGTTCGGGAAATACC  ATGTTGCTGCTATCGATGTTCTGGTCTGAAGTTGATCGTTTAGCTGCCATGGCCGCAAAATATAAG  GTTCAATTTAGTGATGGGGTTCATCGAGAGAGATGGATATACCTTATACTGCACTGTCTGTTTTTCGAC  TCTCAAGGTCAATTCCTCGGAAAGCATAGGAAAGTCATGCCTACTGCTCTCGAGCGCATCATCTGGG  GTTTTGGAGATGGCTCGACAATTCCTGTTTTCGACACGCCTATTGGCAAAATCGGGGCTGCAATCTGT  TGGGAAAACAGAATGCCACTTTTGAGGACAGCAATGTATGCTAAAGGGGTTGAGATCTATTGTGCGC  CTACGGCTGATTCAAGGGATGCTGGCAAGCTTCGATGACACATGTTGCCCTTGAAGGAGGGTGTTC  CGTGCTCTCTGCCAGCCAGTTCTGCAGAAGGAAAGACTACCCGCTCCACCGGATTATGTTTTCTCC  GGTGCGGAGGAAGAAGTCATGCCGAATCCATTGTCTGTGCTGGCGGCAGTGTCAATTTCTCCGT  CTGGGGCTGTGCTGGCAGGGCCGAATTATGAAGGGGAAGCACTCATATCCGCGGATTAGATCTCGG  CGAGGTGGTTCGTGCAAAGTTTCGACTTGTATGTGGTCGGCCACTATGCACGCCCTGAAATCCTCAGC  CTCGTCGTGAAGGACCACCCCATGACCCCGTATCCTTCACTTCAGCATCTGGCAAGGCCGAAAGCT  CCAGAGGGCGACCTGACGTTCCCTAA</p>
UGT74B1	<p>&gt;UGT74B1-TRINITY_DN32215_c0_g1::TRINITY_DN32215_c0_g1_i1::g.92470::m.92470  ATGGAGAAATCAAACCAACCTCACGTCATAGTCTCCCGTATCCGAGCCAAGGCCACATCAACCCCT  CTCCTCCAGTTCGCCAAGCGCCTCGCCGCCAAGGGCGTCCGAGCCACCCTAGCCACCACCGCCAAC  ACCATGCAGTCCGTCCACGCCGCCGCCGTGCGGGTAGCCCCGATCTCGGACGGCGGGCGGTTCGCC  AAAGCAGGCAAGGAAGGGGATTACCTCAGCGCAATTCGAGAGCACGGCTCCAAATCCCTATCTCGA  CTCCTCGACAGCTACAAAGCCCGCGCATCCCCGTGAGTGCCTGATCTACGACTCCTTCTTCCCGT  GGGCGCTCGACGTCGCCCAGCGGCACCGCTACTGGGGGCGGCGTTCTTACCAACTCCGCCGCCG  TGAGCGGATCTTACGCCACATTCACCGCGGCACGCTGACGCTGCCGGTGTATTTGACGATGCGCC  TCTGGTATTGCCTGGTCTGCCGCCCTTGAACCTTTGCGACGTTCCGAGCTTCATCAAGAAGCCTGAG  AGTACCCGGCATACTTGGCTATGAAATTGAATCAGTTTTCCAATCTGGAAAAGCGGATTTCGTCTT  TGCTAACACTTTCCAAGAACTAGAACGACAGGAGGCGAAAAGCGTGGAGAAGTACTGGCCGGCGA  AGCTGGTGGGGCCGCTGGTGCCGTACGCTATCTGGACGGTAGAATCGAAGGAGACAAGGGGTACG  GCGCCAGCTTATGGATGCCGCTGAGAGAGCAATGCGCGGCTTGGCTCAACACCAAGCCGAGGAAT  CAGTGATCTACATCTCGTTCGGGAGCATGGTTTCACTCACTTCGAAGCAGATGGAGGAGATGGCGTG  GGCGGTGACGTCGAGCACCTCTACTTCTCTGGGTGCTGAGGGAAACCGAGCTCGACAACTCCC</p>

	GGCCGGATACACGGAATCCGTGAAGGGGAAGGGGTTGATCGTGTCTGCTGGTGCAACCAGCTGGAGAC GCTGGCCCATCCGGCCATTGGCTGCTTTGTGACGCACTGCGGGTGGAACCTCGACACTGGAAGGGCT GGCGCTGGGGGTGCCGATGGTGGCGCTGCCTCAGTGGGCAGACCAGATGACGGATGCCAAGTTCAT AGAGGGGGTATGGGGGTGGGGTTAGGGCTAAGGAGGATGAGTTGGGGTTGCAGGGAGGGAAG AGCTTCTTTATTGTTTAAAAGAAGTGATGGAAGGAGAGAGGAGAGAGAAGATGAGGAGCAATGCA AGAAAATGGAGGGAGTTGGCAATGGAAGCAAGTGATGAAGGGGGTAGCTCAGACAATGCCATCAA TCAATTTGTGATGAAATTGATGGTCACTACAACAGTAGAAAAATTAG
TAA1	>TAA1-TRINITY_DN3649_c1_g1::TRINITY_DN3649_c1_g1_i4::g.2665::m.2665 ATGGTTATGGAGCTTAGAGCGATGGTTTTGGGGCACTTTTTGGTGGTTTCTTTGGCCTTGAACGTGGG ATTGTTGTACAGAAGCTACTGCAGCGGCAACACAAATCCCAAAACGTCTTCAGCTTCAACAATGA GTGCAAGAACTCATCTTTGCTCCCAATAGGGAAGCCCATGTTGCTCAAAAGGCGTTTCTCTGAACT AAATTTCAATCCTCAAAAGCAGCTGCTCTGAGTGAAGTTATCGATCTCGATCATGGTGATCCGACAAT GTATGAGAGATATTGGCAGCAGATGGGGGATCGAACTACGGTTGTGATCCCGGGTTGGAAATTCATC AGTACTTCTCTGATGTGAGGAGCCTTTGCTGGTTTCTTGAGCCGGAATTTGCAAATGCAGTGGGTAG ATTGCACAAACTGGTGGGAAATGCCGTCACTGATGGCCGTTATATTGTCGTTGGGACGGGATCCACG CAGCTGTTCCAGGCTGTGCTCTATGCTGTTTCCCCCTTAATGCCTCGGAGCCAATCAGTGTGGTGTC TGCTGCCCCGTTCTACTCTTCGTATCCTCTGATCACCGAGTTTCTCAAGTCGGGGCTCTACAAGTGGG GCGGCGACGCGCACGAGTTCAAGAGGGATGTTCCGTATATCGAGCTGGTGACGTCGCCAAACAACC CCGATGGATTGTCAAGAGAGGCCGTGGTGAATCGGAATCAAGGGATACTCGTCCACGACCTCGCTT ACTACTGGCCTCAATACACCTCTATCTCGTCTCCGCCTGCAGATCACGACATCATGCTGTTTACGGTC TCCAAAAGCACGGGCCATGCTGGAACGCGCTTGGGGTGGGCTCTTGTAAGGATCAAGAAACCGC GAGGAAGATGACCGAGTTCATCGTGCTCAGCACCATTGGCGTCTCGAAAGAGTCACAGCTACGCGC AGCCAAGATTCTGCAGGTCCTATCAGACTCCCATGAGCATCGGGGAGTTTCAAGGAAGGCGAAGC CTTCTTCGAGCACAGCTACCATCTCATGAAAAGAGGTGGAAGCAGCTGAGAGAGGCAGTGAAGA AGAGCAAGCTCTTCAGCTTGCCTGTGTTCTCCATGGCAAGTGCGCGTTTCACTGGTCGCACCTTCAC CTCACAGCCAGCTTTCGCGTGGTTGAAGTGTGAGGGCGAAACAGAGGACTGTGAGGGATTCTCTCCG TGACCACAAGGTGCTAACGCGTAGCGGGAAGCACTTTGGTGACAGCGGAAGTACGTGAGGATCA GCGTCTGCCACGTGATGAGGTTTTCGACCAGTTCACGGAGCGATTATCTAGCATCACGACTTTGCC GTCATCCACATAG
YUC1	>YUC1-TRINITY_DN26766_c0_g1::TRINITY_DN26766_c0_g1_i3::g.90152::m.90152 ATGGCGGCAGTGACGATCATCGGCGGCGGCCCTCCGGCTTGGCGACGGCGGCGTGCCTCCACCGC CTCTCCATCCCATACACACTTCTAGAGAGAGAAGACTGCGTCGCTCCTCTGTGGCAAAAGTACACCT ACGATCGGGTGACCTGCACCTACACAAACAATTACGCCACCTGCCGTTTCATGCCTATTCCAAGTTC TTACCCCAAATATCTATCAAGGAACGACTTCATACGCTACCTCAACGAGTACGTTGGGACCTTCGCC ATCCGCCCCGCTACCTTAGGGCTGTGGAGGCGGCGGTATACGACGCGGCGGCGGGAATTGGACG ATCGAATCGAGGAATTTGGCCACCGACGAAATTGAGAAATACAGATCGAGGTTTCTGGTCTGCTGCTA CCGGCGAAACGTGCGATCCTAGGGTTCTGAGATCGAAGGTTTGGGGAGTTTCGCCGCGGAGGTGC TGCATTCGACCAGGTATAAGAACGGTGAGAGGTTTACCAGGAAAAATGTGTTAGTCGTTGGAAGTG GTAATTCGGGCATGGAATCGCGCTCGATCTTGCCAACTCCGGCGCCAAAACCTCCGTCGTTGTGCG AAGTCCGATTCAATACTATCGCGAGAGATGATGCATCGGGAGCCTCCCTGGTGAAGCATCTGCCTT TCGACTGGGTTGACTCATTGGTGACGCTGATGAGCAAGGCCGTGTTGGAGACTTATCAAAATACGG AATTCAAAGGCCCAAAGAGGGCCCTTTTACATGCAAGGCTAAATACGGAAAATACCCAGTTCTTGAT GTTGGAACATGGGACAAGATCAAGTCCAGGGATATTAAGGTGTTGCCGGGAATAAGCTGCATAAAG GGCAATAAGGTCTTTTTTCGAGAATGAAGAGGAACAGCTCTACGACGTGATTGCTTGGCCACAGGCT TCAAAAGCTCCGTCAAACAGTGGCTTAAGGGAGACGATTGTTTATTAATGAAAATGGGCTGGCAA ATGCAAAAAAATTGGAAGGGTGAAAACGGGCTTTATTGTGTGCGGGCTGGCCGGCAGAGGGCTTTATG GAGCAGCTATGGAGGCCCAAAGCATAGCCCAAGATATCAACACTCTACTATTCTAG
AO1	>AO1-TRINITY_DN14468_c0_g5::TRINITY_DN14468_c0_g5_i1::g.208985::m.208985 ATGGGTTCTTTGATGAGAGAGAATGAAATGGAGAGAGTAGATGCAGAATCTCAATTTGAATTAAAGG AAGCGATTCTGTACGTTAATGGAGTCCGTCGAGTTTTCCTGATGGCTTAGCCCACTTACCCTTCTC GAATATCTCAGAGATATGGGCCTCACTGGTACAAAACCTGGTTGTGGTGAAGGAGGTTGCGGGGCAT GCACGGTGATGATTTCTATCTTGACCAAACTCGAAGAAATGTGTGCATCTTGCTATTAAACGCATGC TTGGCTCCATTGTATTCTGTTGAAGGAATGCATGTAATTACAGTTGAGGGTATTGGTAGTTGCAGATAT GGGTTACATCCAATACAGGAATCATTGGCAAATTCACATGGCTCACAATGTGGTTTTTGACCCCTGG TTTTGTTATGTCTATGTATGCCCTGCTAAGATCATCTGAGAAACCACCCACAGAAGAGGACATCAAA GAAAATCTTGCTGGAAATTTATGTGATGTACAGGTTATAGACCGATAATTGATGCTTTTCGTGTATTT GCGAGAAGAGATGATGCCTTGACACAATTCGATCCTCAGACCTTCGAGCAGTGAATTTGTTGCC CATCAACCGGTAAGCCATGTTTCATGCGGACAGAATATTAAGGATGATGAAGGAACCTACCACAAGAA

	<p>GCATCTGTAACAGTGACATTCTGAAGCCAATCTCTTATAACGATACTGATGGAGCTGCATACACTAGC  AAAGAGCTTATCTTCCCTCCAGAGCTTCTAATGAGGAAATCAACTGCTTTATGCTTGACTGGGTCTAA  TGGCCTTAAGTGGCATCGTCCAGTAAGCCTTCAGCATGTATTTGATATAAAAGCAAAATACCCTAATG  CCAAATTAGTTGTTGGTAACACCGAGGTGGGAGTTGAAACAAGGCTAAAAAATTTCCACTATCCAGT  TCTTGTCCATGTTGCTCATGTGCCTGAACCTAATAAATTGAACATAAACGATGAAGGATTGGAGATTG  GTGCAGCAGTTAAACTTTCAGAACTTGTCAAAGTACTAAAATTAGTTATAGACCAGCGTGCTTCTTTT  CAAACCTCATCGTGCAGAGCTATCCTTGAACAGTTAAAATGGTTTGCTGGGACACAAATAAGAAATA  CTGCATCTGTTGGTGAAAATATTTGTACAGCTAGTCCTATATCAGACCTCAACCCTCTATGGATGGCTG  CTGGAGCGAAGTTTCACATTTCCGATTGTAAAGGAAACATAAGGATATGTGAAGCAGAATATTTTTTC  CTGGGTTATCGTAAAGTTGATCTGGCAAGTAATGAGATACTTCTTTTATTTTTCTCCCTTGAATTCTC  GATATGAATTTGTGAAAGAATTTAAGCAAGCTCATAGGAGAGATGATGACATAGCCATTGTGAATGC  TGAATGCGCGCCTGTCTTGAAGAGAAGGACCAGAAATGGATACTTTCTGATGCATCAATTGTTTAT  GGGGTGTTGCTCCTTATTCTATTTCTGCAAATGAAACAAAGAAGTTTCTGCTAGGGAAGCATTGGA  ACAAGGAGTTGTTTCATGGTCTCTAGAAGTACTGGAGAAGGACATTATCCTGAAAGATGGGGCTCC  AGGGGGGATGGTGGAGTTTCGGAATCTTTAATTCTGAGTTTTTCTTCAAGTTTTTCTTGTGGGTTTC  TCACCAGTTGGATGGATTGTCAAGTTCCAACGGAACAGTACCGACATCTTATCTTTCCACAATAAAAT  CTTTTCACTATCCTTCTACTATAGGAAGACAGCATTATGAAATTGTAAAACGTGGGACTGCTGTTGGA  GCTTCTGAAGTTCATCTTCTTCAAGGCTGCAGGTTACAGGAGAGGCTGAGTATACAGATGATGCTCC  TATGCCTCCTAATGGTTTACATGCTGCATTAATATTGAGTAAGAAGCCTCATGCACGTATACTTGCAAT  TGATGATATTATGGCGAAATCTTCTCCGGGGTTTGCAGGAATTTTTTGGCAAAACATGTGCCAGGGA  TCAATATGGTTGGACCAGTTGTTGTGGATGAAGAACTTTTTGCTTCAGAAGTAGTCACATGTGTGGGT  CAGGTTATTGGGGTGTTGTGGCTGATACACATGAAAATGCAAAGCACGCCGCCCGGAAAGTCCAC  ATTCAATATGAAGAACTACCAACAGTCTTATCTATTGAAGAAGCTATTGCATCTAACAGTTTCCACCC  AGAACTGAAAGGTGCCTGAGGAAAGGTGATGTGGACCTCTGTTTCTTGGCAGGGCAGTGTGATAA  TATAATTGAAGGAGCAGTTCAGGTAGGTGGTCAGGAACATTTCTACTTGGAGCCAAATAGCACTTTA  GTATGGACTATTGATGGTGGAATGAAGTTCATATGATCTCATCTACTCAAGCCCCTAAGAAACACCA  ACAGTATGTTGCCCGTGTCTTGGTCTTCCGATGTCAAAAGTTGTATGCAAGACTAAAAGAGTTGGTG  GTGGATTGGAGGGAAGAAACCAGGTCTGCTTTCCTTGCTGCTGTGGCTGCCATTCCATCATATTTA  CTAAATCGTCCAGTAAAGATTACACTCGATAGGGATATTGACATGATGATAACAGGACAACGCCATA  GCTTCTTGGGAAGTATAAGGTTGGTTTTACAAATGATGGAAAGATACTTGCTTTGGATCTTGAGATC  TTCAACAATGGAGGAAACTCACTTGATCTCTCACTTGGGTGCTTGAACGTGCCATGTTCATTAG  ACAATGTATATGAGATTCTAATGTTAAGGTCAAAGGAAAGGTCTGCTTAACAAATTTGCTAGTAAT  ACTGCTTTCGGAGGATTCGGTGGTCCACAAGGTATGCTGATTGCTGAAAACCTGGATTCAAAGAATAT  CCATGGAACCTAAGAAAAGCCCAGAAGAGATTAGGGAGAGGAATTTTCAGAGAGACGGTTCCGTG  TTGCATTATGGTCAAAAAATTGAAAACCTGCACCCTGGAGCGCCTCTGGAACGAACTCAAGACATCA  TCTGACTTTTTAGCCGTTAAAAAAGAAGTGGTGCAGTTCAATACTCATAATAGATGGAAGAAGCGTG  GAGTGGCTATCGTCCCTACAAAATTTGGCATATCTTTTACTGCAAAATTTATGAATCAGGCAGGTGCA  CTCGTCCATGTTTATACAGATGGAACCTGTGTTAGTTACACATGGGGGTGTTGAGATGGGGCAGGGTTT  GCATACAAAAGTGGCACAGGTGGCTGCGTCTCTTTCAACATTCCTCTGAGCTCCATTTTTATATCAG  AGACAAGTACAGATAAGGTTCCAAATGCATACCAACGGCTGCTTCTGCAAGTTCTGATATATATGG  TGCTGCAGTTTTAGATGCATGTGAGCAAATAAAAGCACGCATGGAACCTATAGCATCAAAACATAAT  TTTGCTCATTTGCGGAGCTTGCCAATGCATGCTACATGGAGCGGATAGACCTTCTGCTCATGGATT  TATAAAACGCCTGATATCGGCTTTGATTGGGTAGCTGGTAAAGGGACTCCATTTCAGGTACTTCACTTA  TGGGGCAGCACTTGCTGAGGTTGAAATTGACACATTAGTAGGAGACTTCCATACAAGGCAGGCAGA  TGTTATTTTGGATCTTGGACTTCCGTTGAATCCAGCTATTGATGTTGGGCAGATTGAAGGCGCGTTTGT  GCAAGGTCTTGGATGGGTGGCTCTGGAAGAGCTAAAAATGGGGTGATGCTGCTCACAAAGTGGATACC  AGCAGGATGTCTGTACACTTGCGGTCTGGTAGTTACAAGATTCCATCCATGAATGACGTCCCATTGA  AATTCAATGTCTCCCTCCTGAAGGTGCGCCGAATCCTAAGGCTATCCACTCATCCAAAGCAGTGGG  AGAGCCGCCCTTCTTTCTGGCCTCAGCTGTATTCTTCGCAATCAAGGATGCCATCATAGCTGCGAGGG  CGGAGGTTGGTCTTAATGATTGGTTTTCTCTGGATAATCCAGCAACTCCTGAACGTATACGGATGGCT  TGTGTAGACGAGTTCACAAATGCCCTTCATCGACTCTGTTTTCCATCCAAAGCTTAGTGTTAG</p>
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