

**Figure S3.** DNA sequences synthesised. The *eGFP* and *mCherry* codon usages were manually optimised to *Streptomyces*, using the *Streptomyces* codon usage table of 100 *Streptomyces* genes reported by Kieser et al. [1].

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**P1 281 bps**

*SpeI* + P1 + *XbaI* + *EcoRV*

ACTAGT

AACCTGGACGAGGTGCTGGAGGCGGGCGCCCGGCGCGTGGTTCGTTCGTGCGCGCGA  
TCACCGCCGCGGAGGACCCGGGCGCGGCGGCGGCCGAGTTCGCCCCGGCGGCTGCG  
GCAGGCTCCGGCACACGGGTAGCCGCACCTCGCCACCGACGTCGTTCGAGGCCGTC  
GTCTGCGGCGGGCAGGTGTCCAAAGGGTGGACAACAACCTCGACAATGTGGACAAA  
AGTCCCGCATCCGGTTGGGTGACCGCCGCACCCTGGCTAACCTGCCCAT TCTAGA  
GATATC

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**P1-P2-SCO2102 1574 bps**

*SpeI* + P1 + P2 + *SCO2102* + *EcoRV*

ACTAG

TAACCTGGACGAGGTGCTGGAGGCGGGCGCCCGGCGCGTGGTTCGTTCGTGCGCGCG  
ATCACCGCCGCGGAGGACCCGGGCGCGGCGGCGGCCGAGTTCGCCCCGGCGGCTGC  
GGCAGGCTCCGGCACACGGGTAGCCGCACCTCGCCACCGACGTCGTTCGAGGCCGTC  
CGTCTGCGGCGGGCAGGTGTCCAAAGGGTGGACAACAACCTCGACAATGTGGACAA  
AAGTCCCGCATCCGGTTGGGTGACCGCCGCACCCTGGCTAACCTGCCCATCTCACA  
GCCAAGGACGATCCGGCGGCTGTACGCTCGATCGGCATCGAGTTCGCCACGGAGTT  
CTGCGCGCGGCTGCTGGCCGAGGGAGTGCCAGGACTGCACTTCATCACGCTCAACA  
ACTCCACGGCGACGCTGGAAATCTACGAGAACCTGGGCCTGCACCACCCACCGCGG  
GCCTAGACCGGCCGCACGTATTTGCGACACACTGCGTAACGGCCACTGGGAGAGGG  
GCGTACATGGGCTGGACGGTCCTCTACATCGCGTTCGGCGTCGTTCGCGCTGTGGCT  
GCTCGGCGAGGTGCTGCTGCAGTACAAGGCGCGGCTGCGCTGGCGGCTGCTGGCCT  
TCGCCGGCTTCGTTCGGCGTCGTGGCCGGTGTGCTGATGTGGAACGTGCTCGTCATCG  
GCGTCGGTGCCGCCGCCTTCGCGGTCGGCCAGACCTACGTCACCCTGTCGTTCCGCC  
GCGGCTTCGAGGCCGGCTGGGCGGTCAACGCCCCGGCGAGCCTCGTCGGCAAGCGC  
GGGCGTCCCGAACGGGGGCCCGGGAACCGACGTTGGAGGTCTCCGGGCTCGAAC  
CCGCCGAGGGCGGCCCCGACCACCGACGGCTACGACGAGCCCCGCCCCGGGCCA  
GGACGGCACCGGCTCGTACGGGCACGACGACTACGACCGCGACGACGTCTTACCC  
CGGCCCGGCCACCGCCGACCCCTCGGCCGAGAGACCACCGCCGTCTACGAACCG  
CAGCCCATGCCGGACGACACCAACTCGTACGGCGTCTACACCGACGCCGGTTACGG  
CACCGGCCAGCAGCAGGCGGCCGCCGCGCCGACGCCGACCAGGCGTACGCCTAC  
GACTACTCCGGCTACGGCCAGCAGCAGGAGTACGGCTACGACACCGGCGCCCAGC  
AGCAGTACGCCGCCTACTCCGACCCGTACATCGGCACCCACACCTACGGCGGCGGG  
ACGTACGACACCGGCGGCTACGACACGACCGGTGAGCAGAACTACGGCCAGCAGG  
GCTACGGGCAGGACCAGTACGCCCCGGCGCCCCCGGCGCCCCCGGCGCGCCCGGC  
GGCTACGGCGGCGAGACCCCGGCCGGCGGAGTGTGGGTGCCGCAGCAGCGCAGCA

CCGACGACCCCTACGGCGGCGAGCTCCCGCCCGAGCAGCAGCCCTACCCCTACCAG  
GGCGACGGCCAGACGCAGGGCCAGGGCTACGACGAGCAGTACCGCTTCTGAGGAA  
GAGGAAGCCCGAGCCGCTCACTGGGAGCCGCGGAACCTCCGGCCCCTCCACCACGA  
GTCC **GATATC**

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**P2-SCO2102-mcherry 1973 bps**

**SpeI** + P2 + **NdeI** SCO2102 + **XhoI** + mcherry + **EcoRV**

**ACTAGT**ATCCTCACAGCCAAGGACGATCCGGCGGCTGTACGCTCGATCGGCATCGA  
GTTCCGCCACGGAGTTCTGCGCGCGGCTGCTGGCCGAGGGAGTGCCAGGACTGCACT  
TCATCACGCTCAACAACCTCCACGGCGACGCTGGAAATCTACGAGAACCTGGGCCTG  
CACCACCCACCGCGGGCCTAGACCGGCCGCACGTATTTGCGACACACTGCGTAACG  
GCCACTGGGAGAGGGGCGTAC**CATATG**GGCTGGACGGTCCTCTACATCGCGTTCGG  
CGTCGTCGCGCTGTGGCTGCTCGGCGAGGTGCTGCTGCAGTACAAGGCGCGGCTGC  
GCTGGCGGCTGCTGGCCTTCGCCGGCTTCGTGCGCGTCGTGGCCGGTGTGCTGATGT  
CGAACGTGCTCGTCATCGGCGTCGGTGCCGCCGCTTCGCGGTGCGGCCAGACCTAC  
GTCACCCTGTCGTTCCGCCGCGGCTTCGAGGCCGGCTGGGCGGTCAACGCCCCGGC  
GAGCCTCGTCGGCAAGCGCGGGCGTCCCGAACGGGGCCGCGGGAACCGACGTTG  
GAGGTCTCCGGGCTCGAACCCGCCGAGGGCGGCCCCGACCACCACGACGGCTACG  
ACGAGCCCCGCCCCGGGCCAGGACGGCACCGGCTCGTACGGGCACGACGACTACGA  
CCGCGACGACGTCTTCACCCCGGCCCGGCCACCGCCGACCCCTCGGCCGCAGAGA  
CCACCGCCGTCTACGAACCGCAGCCCATGCCGGACGACACCAACTCGTACGGCGTC  
TACACCGACGCCGGTTACGGCACCGGCCAGCAGCAGGCGGCCCGCCGCGCCGGACG  
CCGACCAGGCGTACGCCTACGACTACTCCGGCTACGGCCAGCAGCAGGAGTACGGC  
TACGACACCGGCGCCCAGCAGCAGTACGCCGCTACTCCGACCCGTACATCGGCAC  
CCACACCTACGGCGGCGGGACGTACGACACCGGCGGCTACGACACGACCGGTGAG  
CAGAACTACGGCCAGCAGGGCTACGGGCAGGACCAGTACGCCCCCGGCGCCCCCG  
GCGCCCCCGGCGCGCCCGGCGGCTACGGCGGCGAGACCCCGGCCGGCGGAGTGTG  
GGTGCCGCAGCAGCGCAGCACCGACGACCCCTACGGCGGCGAGCTCCCGCCCGAG  
CAGCAGCCCTACCCCTACCAGGGCGACGGCCAGACGCAGGGCCAGGGCTACGACG  
AGCAGTACCGCTTC**CTCGAG**ATGGTCAGCAAGGGCGAGGAGGACAACATGGCCAT  
CATCAAGGAGTTCATGCGCTTCAAGGTCCACATGGAGGGCTCCGTCAACGGCCACG  
AGTTCGAGATCGAGGGCGAGGGCGAGGGCCGCCCGTACGAGGGCACCCAGACCGC  
CAAGCTGAAGGTCACCAAGGGCGGCCCCGCTGCCGTTTCGCCTGGGACATCCTGTCCC  
CGCAGTTCATGTACGGCTCCAAGGCCTACGTCAAGCACCCCGCCGACATCCCGGAC  
TACCTGAAGCTGTCCTTCCCCGAGGGCTTCAAGTGGGAGCGCGTCATGAACTTCGA  
GGACGGCGGCGTTCGTCACCGTCACCCAGGACTCCTCCCTGCAGGACGGCGAGTTCA  
TCTACAAGGTCAAGCTCCGCGGCACCAACTTCCCGTCCGACGGCCCCGGTCATGCAG  
AAGAAGACCATGGGCTGGGAGGCCTCCTCCGAGCGCATGTACCCGGAGGACGGCG  
CCCTGAAGGGCGAGATCAAGCAGCGCCTGAAGCTGAAGGACGGCGGCCACTACGA  
CGCCGAGGTCAAGACCACCTACAAGGCCAAGAAGCCGGTCCAGCTGCCGGGCGCC  
TACAACGTCAACATCAAGCTGGACATCACCTCCCACAACGAGGACTACACCATCGT  
CGAGCAGTACGAGCGCGCCGAGGGCCGCCACTCCACCGGCGGCATGGACGAGCTG  
TACAAGTGATACGTAGTTAAC**GATATC**

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## eGFP 744 BPS

**XhoI** + eGFP + **EcoRV**

**CTCGAG**ATGGTCTCCAAGGGCGAGGAGCTGTTACCGGCGTCGTCCCGATCCTGGT  
CGAGCTGGACGGCGACGTCAACGGCCACAAGTTCTCCGTCTCCGGCGAGGGCGAG  
GGCGACGCCACCTACGGCAAGCTGACCCTGAAGTTCATCTGCACCACCGGCAAGCT  
GCCGGTCCCGTGGCCGACCCTGGTCACCACCCTGACCTACGGCGTCCAGTGCTTCTC  
CCGCTACCCGGACCACATGAAGCAGCACGACTTCTTCAAGTCCGCCATGCCGGAGG  
GCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGGCAACTACAAGACCCGC  
GCCGAGGTCAAGTTCGAGGGCGACACCCTGGTCAACCGCATCGAGCTGAAGGGCA  
TCGACTTCAAGGAGGACGGCAACATCCTGGGCCACAAGCTGGAGTACAACACTACAA  
CTCCCACAACGTCTACATCATGGCCGACAAGCAGAAGAACGGCATCAAGGTCAACT  
TCAAGATCCGCCACAACATCGAGGACGGCTCCGTCCAGCTGGCCGACCACTACCAG  
CAGAACACCCCGATCGGCGACGGCCCGGTCCTGCTGCCGGACAACCACTACCTGTC  
CACCCAGTCCGCCCTGTCCAAGGACCCCAACGAGAAGCGCGACCACATGGTCCTGC  
TGGAGTTCGTACCCGCCGCCGGCATCACCTGGGCATGGACGAGCTGTACAAGTGA  
TACGTAGTTAAC**GATATC**

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1. Kieser, T., *Practical streptomyces genetics*. John Innes Foundation: Norwich, 2000.