

ATGCATAGCAAAGGTGAAGAACTGTTTACTGGAGTGGTGCCCATCTGGTTGAACTGGACGGCGATGTGAACGGTCATAAATT
TAGTGTTAGCGGCGAAGGTGAAGGGGATGCCACCTACGGCAAATTGACCTTGAAATTTATTTGTACCACCGGTAAATTGCCCCG
TGCCCTGGCCACCTTAGTGACCACCTTTGGCTATGGTGTGCAATGTTTTGCCCGTTATCCCGATCATATGAAACAACATGAT
TTCTTTAAAAGTGCCATGCCCGAAGGTTATGTGCAAGAACGGACCATTTTCTTTAAAGATGATGGGAACACAAAACCCGCGC
CGAAGTGAAATTTGAAGGGGATACCTTGGTGAATCGTATTGAATTGAAAGGCATTGATTTTAAAGAAGATGGTAATATTTTGG
GGCATAAATTAGAATACAACACAGTCATAATGTGTATATTATGGCCGATAAACAGAAAAATGGCATTAAAGTGAACTTT
AAAATTCGGCATAACATTGAAGATGGTTCCGTGCAATTGGCCGATCATTATCAACAAAATACCCCCATTGGGGATGGCCCCGT
GTTGTTACCCGATAATCATTATTTGTCCACCCAAAGTGCCCTATCCAAAGATCCCAATGAAAAACGCGATCATATGGTGCTGT
TAGAATTTGTTACCGCTGCTGGGATTACCCACGGAATGGACGAATTATACAAATAAGCTAGCGTTTGATCGGGCACGTAAGAGG
TTCCAACCTTTCACCATAATGAAATAAGATCACTACCGGGCGTATTTTTTGAGTTATCGAGATTTTCAGGAGCTAAGGAAGCTA
AAATGGAGAAAAAATCACGGGATATACCACCGTTGATATATCCCAATGGCATCGTAAAGAACATTTTGAGGCATTTTCAGTCA
GTTGCTCAATGTACCTATAACCAGACCGTTTCAGCTGGATATTACGGCCTTTTTAAAGACCGTAAAGAAAAATAAGCACAAGTT
TTATCCGGCCTTTATTCACATTCTTGCCCGCCTGATGAACGCTCACCCGGAGTTTCGTATGGCCATGAAAGACGGTGAGCTGG
TGATCTGGGATAGTGTTACCCCTTGTTACACCGTTTTCCATGAGCAAACGTTTTCGTCCCTCTGGAGTGAATACCAC
GACGATTTCCGGCAGTTTCTCCACATATATTCGCAAGATGTGGCGTGTTACGGTGAAAACCTGGCCTATTTCCCTAAAGGGTT
TATTGAGAATATGTTTTTGTCTCAGCCAATCCCTGGGTGAGTTTCACCAGTTTGATTTAAACGTGGCCAATATGGACAACT
TCTTCGCCCCCGTTTTACGATGGGCAAAATTATACGCAAGGCGACAAGGTGCTGATGCCGCTGGCGATCCAGGTTTCATCAT
GCCGTTTGTGATGGCTTCCATGTCGGCCGCATGCTTAATGAATTACAACAGTACTGTGATGAGTGGCAGGGCGGGGCGTAATA
AGCTAGCGCGGCCGCTCGAG

Additional file 1: Nucleotide sequence of the synthetic GFPmut3b gene codon optimized for *Synechosystis* sp. PCC 6803. The gene sequence is shown in black, chloramphenicol cassette in grey and the restriction sites in red font.