



TGGAGTATTTACGGTAAACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACG  
 ACCTCATAAATGCCATTTGACGGGTGAACCGTCATGTAGTTCACATAGTATACGGTTTCATGCGGGGGATAACTGC  
 CMV enhancer

2400

TCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGGGACTTTCTACTTGGCAGTACA  
 AGTTACTGCCATTTACCGGGCGGACCGTAATACGGGTCATGTACTGGAATACCCTGAAAGGATGAACCGTCATGT  
 CMV enhancer

2475

TCTACGTATTAGTCATCGCTATTACCATGGTGATGCGTTTTTGGCAGTACATCAATGGGCGTGATAGCGTTTTG  
 AGATGCATAATCAGTAGCGATAATGGTACCACTACGCCAAAACCGTCATGTAGTTACCCGCACCTATCGCCAAAC  
 CMV enhancer CMV promoter

2550

ACTCACGGGGATTTCCAAGTCTCCACCCATTGACGTCAATGGGAGTTTGTGTTTGGCACCAAATCAACGGGACT  
 TGAGTGCCCTAAAGGTTTCAGAGGTGGGGTAACTGCAGTTACCCTCAAACAAAACCGTGTTTTAGTTGCCCTGA  
 CMV promoter

2625

TTCCAAAATGTCGTAACAACCTCCGCCCATTTGACGCAAATGGGCGGTAGGCGGTGACGGTGGGAGGTCTATATAA  
 AAGGTTTTACAGCATTGTTGAGGCGGGGTAACCTGCGTTTACCCGCCATCCGCACATGCCACCCTCCAGATATATT  
 CMV promoter

2700

GCAGAGCTCGTTTTAGTGAACCGTCAGATCGCCTGGAGACGCCATCCACGCTGTTTTGACCTCCATAGAAGACACC  
 CGTCTCGAGCAAATCACTTGGCAGTCTAGCGGACCTCTGCGGTAGGTGCGACAAAACCTGGAGGTATCTTCTGTGG  
 CMV promoter

2775

GACTCTACTAGAGGATCGCTAGCGCTACCGGACTCAGATCTCGAGCTCAAGCTTCGAATTCTGCAGTCGACGGTA  
 CTGAGATGATCTCCTAGCGATCGCGATGGCCTGAGTCTAGAGCTCGAGTTCGAAGCTTAAGACGTCAGCTGCCAT  
 MCS

2850

XmaI ApaI SmaI BamHI

CCGCGGGCCCGGGATCCACCGGTCATGGTGAGCAAGGGCGCCGAGCTGTTACACGGCATCGTGCCCATCCTGATC  
GGCGCCCGGGCCCTAGGTGGCCAGTACCACTCGTTCCCGCGGCTCGACAAGTGGCCGTAGCACGGGTAGGACTAG

2925

1 5 10 15  
Met Val Ser Lys Gly Ala Glu Leu Phe Thr Gly Ile Val Pro Ile Leu Ile  
MCS AcGFP1

GAGCTGAATGGCGATGTGAATGGCCACAAGTTCAGCGTGAGCGGCGAGGGCGAGGGCGATGCCACCTACGGCAAG  
CTCGACTTACCGCTACACTTACCGGTGTTCAAGTCGCACTCGCCGCTCCCGCTCCCGCTACGGTGGATGCCGTTCC

3000

20 25 30 35 40  
Glu Leu Asn Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly Asp Ala Thr Tyr Gly Lys  
AcGFP1

CTGACCCTGAAGTTCATCTGCACCACCGGCAAGCTGCCTGTGCCCTGGCCCACCCTGGTGACCACCCTGAGCTAC  
GACTGGGACTTCAAGTAGACGTGGTGGCCGTTTCGACGGACACGGGACCGGGTGGGACCACTGGTGGGACTCGATG

3075

45 50 55 60 65  
Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Leu Ser Tyr  
AcGFP1

GGCGTGCAGTGCTTCTCACGCTACCCCGATCACATGAAGCAGCAGCACTTCTTCAAGAGCGCCATGCCTGAGGGC  
CCGCACGTCACGAAGAGTGGGATGGGGCTAGTGTACTTCGTCTGCTGAAGAAGTCTCGCGGTACGGACTCCCG

3150

70 75 80 85 90  
Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly  
AcGFP1

TACATCCAGGAGCGCACCATCTTCTTCGAGGATGACGGCAACTACAAGTCGCGCGCCGAGGTGAAGTTCGAGGGC  
ATGTAGGTCCTCGCGTGGTAGAAGAAGCTCCTACTGCCGTTGATGTTTCAGCGCGGCTCCACTTCAAGCTCCCG

3225

95 100 105 110 115  
Tyr Ile Gln Glu Arg Thr Ile Phe Phe Glu Asp Asp Gly Asn Tyr Lys Ser Arg Ala Glu Val Lys Phe Glu Gly  
AcGFP1

GATACCCTGGTGAATCGCATCGAGCTGACCGGCACCGATTTCAAGGAGGATGGCAACATCCTGGGCAATAAGATG  
CTATGGGACCACTTAGCGTAGCTCGACTGGCCGTGGCTAAAGTTCCTCCTACCGTTGTAGGACCCGTTATTCTAC

3300

120 125 130 135 140  
Asp Thr Leu Val Asn Arg Ile Glu Leu Thr Gly Thr Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly Asn Lys Met  
AcGFP1

GAGTACAAC TACAACGCCACAATGTGTACATCATGACCGACAAGGCCAAGAATGGCATCAAGGTGAAGTTC AAG  
CTCATGTTGATGTTGCGGGTGTACACATGTAGTACTGGCTGTTCCGGTTCCTACCGTAGTTCACACTTGAAGTTC

3375

145 150 155 160 165  
Glu Tyr Asn Tyr Asn Ala His Asn Val Tyr Ile Met Thr Asp Lys Ala Lys Asn Gly Ile Lys Val Asn Phe Lys  
AcGFP1

ATCCGCCACAACATCGAGGATGGCAGCGTGCAGCTGGCCGACCACTACCAGCAGAATACCCCATCGGCGATGGC  
TAGGCGGTGTTGTAGCTCCTACCGTTCGCACGTCGACCGGCTGGTGTATGGTTCGTTATGGGGGTAGCCGCTACCG

3450

170 175 180 185 190  
Ile Arg His Asn Ile Glu Asp Gly Ser Val Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly  
AcGFP1

CCTGTGCTGCTGCCCGATAACCACTACCTGTCCACCCAGAGCGCCCTGTCCAAGGACCCCAACGAGAAGCGCGAT  
GGACACGACGACGGGCTATTGGTGTATGGACAGGTGGGTCTCGCGGGACAGGTTCTGGGGTTGCTCTTCGCGCTA

3525

195 200 205 210 215  
Pro Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Ala Leu Ser Lys Asp Pro Asn Glu Lys Arg Asp  
AcGFP1

CACATGATCTACTTCGGCTTCGTGACCGCCGCCCATCACCCACGGCATGGATGAGCTGTACAAGTGAGCGGCC  
GTGTACTAGATGAAGCCGAAGCACTGGCGGCGGCGGTAGTGGGTGCCGTACCTACTCGACATGTTCACTCGCCGG

3600

220 225 230 235 240  
His Met Ile Tyr Phe Gly Phe Val Thr Ala Ala Ile Thr His Gly Met Asp Glu Leu Tyr Lys  
AcGFP1