



ACATGTTCTTTCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCTTTGAGTGAGCTGATACCGCTC
TGTACAAGAAAGGACGCAATAGGGGACTAAGACACCTATTGGCATAATGGCGGAAACTCACTCGACTATGGCGAG

1950

GCCGCAGCCGAACGACCGAGCGCAGCGAGTCAAGTGAAGCGGAAGAGCGCCCAATACGCAAACCGCCTC
CGGCGTCGGCTTGCTGGCTCGCGTCTCAGTCACTCGCTCCTTCGCCTTCTCGCGGGTTATGCGTTTGGCGGAG

2025

TCCCCGCGCGTTGGCCGATTCATTAATGCAGCTGGCACGACAGGTTTCCCGACTGGAAAGCGGGCAGTGAGCGCA
AGGGGCGCGCAACCGGCTAAGTAATTACGTCGACCGTGCTGTCCAAAGGGCTGACCTTTCGCCCGTCACTCGCGT

2100

ACGCAATTAATGTGAGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTTCCGGCTCGTATGTTGT
TGCCTTAATTACTCAATCGAGTGAGTAATCCGTGGGGTCCGAAATGTGAAATACGAAGGCCGAGCATAACA

2175

CAP binding site

lac promoter

GTGGAATTGTGAGCGGATAACAATTTACACAGGAAACAGCTATGACCATGATTACGCCAAGCTTGCATGCAGGC
CACCTTAACACTCGCCTATTGTTAAAGTGTGTCCTTTGTCGATACTGGTACTAATGCGGTTTCGAACGTACGTCCG

2250

lac operator

M13 rev

MCS

HindIII

StuI

CTCTGCAGTCGACGGGCCCCGGGATCCGATATCTAGATGCATTTCGCGAGGTACCGAGCTCGAATTCAGTGGCCGTC
GAGACGTCAGCTGCCCGGGCCCTAGGCTATAGATCTACGTAAGCGCTCCATGGCTCGAGCTTAAGTGACCGGCAG

2325

MCS

M13 fwd

SalI

XmaI

BamHI

EcoRV

XbaI

KpnI

SacI

EcoRI

GTTTTACAACGTCGTGACTGGGAAAACCCCTGGCGTTACCCAACTTAATCGCCTTGCAGCACATCCCCCTTTCGCC
CAAAATGTTGCAGCACTGACCCTTTTGGGACC GCAATGGGTTGAATTAGCGGAACGTCGTGTAGGGGGAAAGCGG

2400

M13 fwd