

pcDNA3

hCMV immediate early promoter

Polylinker

Primer binding sites

Bovine Growth Hormone polyA



↓ 5' end of hCMV promoter/enhancer

224 ATATACGCGT TGACATTGAT TATTGACTAG TTATTAATAG TAATCAATTA CGGGGTCATT

284 AGTTCATAGC CCATATATGG AGTTCGCGT TACATAACTT ACGGTAAATG GCCCGCCTGG

344 CTGACCGCCC AACGACCCCC GCCCATTGAC GTCAATAATG ACGTATGTTC CCATAGTAAC

404 GCCAATAGGG ACTTTCCATT GACGTCAATG GGTGGACTAT TTACGGTAAA CTGCCCCTT

464 GGCAGTACAT CAAGTGTATC ATATGCCAAG TACGCCCCCT ATTGACGTCA ATGACGGTAA

524 ATGGCCCCGC TGGCATTATG CCCAGTACAT GACCTTATGG GACTTTCCTA CTTGGCAGTA

584 CATCTACGTA TTAGTCATCG CTATTACCAT GGTGATGCGG TTTTGGCAGT ACATCAATGG

644 GCGTGGATAG CGGTTTGACT CACGGGGATT TCCAAGTCTC CACCCCATTG ACGTCAATGG

704 GAGTTTGT TTGGCACAAA ATCAACGGGA CTTTCCAAA TGTCGTAACA ACTCCGCCCC

764 ATTGACGCAA ATGGGCGGTA GGCGTGTACG GTGGGAGGTC TATATAAGCA GAGCTCTCTG

824 GCTAACTAGA GAACCCACTG CTTACTGGCT TATCGAAATT AATACGACTC ACTATAGGGA

884 GACCCAAGCT TGGTACCGAG CTCGGATCCA CTAGTAACGG CCGCCAGTGT GCTGGAATTC

944 TGCAGATATC CATCACACTG GCGGCCGCTC GAGCATGCAT CTAGAGGGCC CTATTCTATA

1004 GTGTCACCTA AATGCTAGAG CTCGCTGATC AGCCTCGACT GTGCCTTCTA GTTGCCAGCC

1064 ATCTGTTGTT TGCCCCTCCC CCGTGCCTTC CTTGACCCTG GAAGGTGCCA CTCCCCTGT

1124 CCTTTCCTAA TAAAATGAGG AAATTGCAT

API

enhancer region (3' end)

CAAT

TATA

3' end of hCMV

putative transcriptional start

T7 promoter

Hind III Kpn I BamH I Bst XI Eco R I

Eco R V Bst XI Not I Xho I Xba I Apa I

Sp6 promoter

BGH polyA

NOTE: There is an ATG upstream of the Xba I and Apa I sites