Partial nucleotide sequence of plasmid tk-LUC (after S. Hollenberg)

HSV-TK promoter (-105 to +51, from pBLCAT2, Luckow & Schütz, (1987) NAR, 15, 5490) is placed between BamHI and BglII. Downsteram of XhoI, the firefly luciferase coding sequence with SV40 small t intron and poly-A signal (HindIII - BamHI fragment from SVOA/L-AΔ5', de Wet et al., (1987) MCB, 7, 725-737) was cloned.

pembl8

3601 ATGTGCTGCA AGGCGATTAA GTTGGGTAAC GCCAGGGTTT TCCCAGTCAC

3651 GACGTTGTAA AACGACGGCC AGTGCCAAGC TTGCATGCCT GCAGGTCGAC
HindIII SphI PstI SalI

3701 TCTAGAGGAT CCGGCCCCGC CCAGCGTCTT GTCATTGGCG AATTCGAACA
XbaI BamHI EcoRI

HSV-TK

3751 CGCAGATGCA GTCGGGGCGG CGCGGTCCCA GGTCCACTTC G**CATATTAA**G
"TATA BOX"

|----> transcription

3801 GTGACGCGTG TGGCCTCGAA CACCGAGCGA CCCTGCAGCG ACCCGCTTAA
+1 PstI

3851 CAGCGTCAAC AGCGTGCCGC AGATCTCTCG AGTCCGGTAC TGTTGGTAAA
BglII XhoI

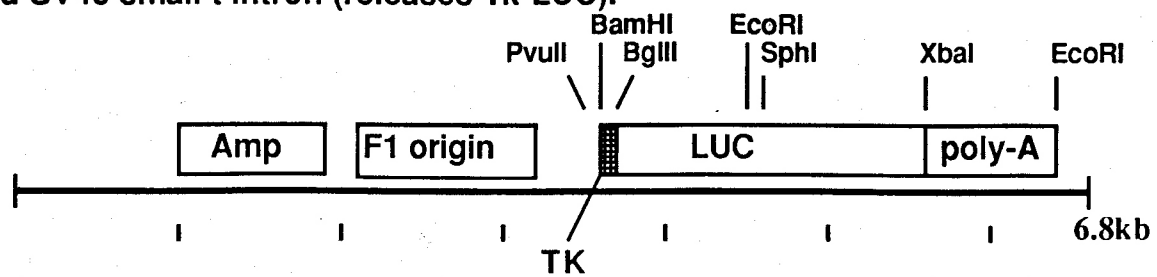
LUC

3901 ATGGAAGACG CCAAAAACAT AAAGAAAGGC CCGGCGCCAT TCTATCCTCT

3951 AGAGGATGGA ACCGCTGGAG AGCAACTGCA TAAGGCTATG AAGAGATACG

4001 CCCTGGTTCC TGGAACAATT GCTTTTACAG ATGCACATAT CGAGGTGAAC

To clone any insert upstream of TK promoter, choose HindIII, SalI or BamHI. PstI cuts TK promoter, SphI cuts once in LUC seq., and XbaI cuts a margin between LUC and SV40 small t intron (releases Tk-LUC).



ASSEMBLE March 10, 1988 11:30

Symbols: 1 to: 3677 from: tkluc.seq ck: 6055, 1 to: 3677

ASSEMBLE November 24, 1987 12:51
Symbols: 1 to: 3702 from: pembl8.seq ck: 2906, 1 to: 3702
ASSEMBLE November 24, 1987 12:48
Symbols: 1 to: 3939 from: pembl8p.vec /rev ck: 5681, 1 to: 3939
pEMBL 8 plus - Phasmid Cloning Vector . . .

Symbols: 3678 to: 3707 from: puc18.vec /rev ck: 5464, 256 to: 285

pUC18 - Cloning vector
ENTRY PUC18 #TYPE DNA CIRCULAR
TITLE pUC18 - Cloning vector
DATE 17-SEP-1986
#sequence 16-DEC-1986 . . .

Symbols: 3708 to: 6694 from: tkluc.seq ck: 6055, 3698 to: 6684

ASSEMBLE November 24, 1987 12:51
Symbols: 1 to: 3702 from: pembl8.seq ck: 2906, 1 to: 3702
ASSEMBLE November 24, 1987 12:48
Symbols: 1 to: 3939 from: pembl8p.vec /rev ck: 5681, 1 to: 3939
pEMBL 8 plus - Phasmid Cloning Vector . . .

tkluc.seq Length: 6694 March 10, 1988 11:31 Check: 8559 ..

1 GCTCTTCCGC TTCCTCGCTC ACTGACTCGC TGCGCTCGGT CGTTCGGCTG

51 CGGCGAGCGG TATCAGCTCA CTCAAAGGCG GTAATACGGT TATCCACAGA

101 ATCAGGGGAT AACGCAGGAA AGAACATGTG AGCAAAAGGC CAGCAAAAGG

151 CCAGGAACCG TAAAAAGGCC GCGTTGCTGG CGTTTTTCCA TAGGCTCCGC

201 CCCCCTGACG AGCATCACAA AAATCGACGC TCAAGTCAGA GGTGGCGAAA

251 CCCGACAGGA CTATAAAGAT ACCAGGCGTT TCCCCCTGGA AGCTCCCTCG

301 TGCGCTCTCC TGTTCCGACC CTGCCGCTTA CCGGATACCT GTCCGCCTTT

351 CTCCCTTCGG GAAGCGTGGC GCTTTCTCAT AGCTCACGCT GTAGGTATCT

401 CAGTTCGGTG TAGGTCGTTC GCTCCAAGCT GGGCTGTGTG CACGAACCCC

451 CCGTTCAGCC CGACCGCTGC GCCTTATCCG GTAACTATCG TCTTGAGTCC

501 AACCCGGTAA GACACGACTT ATCGCCACTG GCAGCAGCCA CTGGTAACAG

551 GATTAGCAGA GCGAGGTATG TAGGCGGTGC TACAGAGTTC TTGAAGTGGT

601 GGCCTAACTA CGGCTACACT AGAAGGACAG TATTTGGTAT CTGCGCTCTG

651 CTGAAGCCAG TTACCTTCGG AAAAAGAGTT GGTAGCTCTT GATCCGGCAA

701 ACAAACCACC GCTGGTAGCG GTGGTTTTTT TGTTTGCAAG CAGCAGATTA

751 CGCGCAGAAA AAAAGGATCT CAAGAAGATC CTTTGATCTT TTCTACGGGG

801 TCTGACGCTC AGTGGAACGA AAACTCACGT TAAGGGATTT TGGTCATGAG

851 ATTATCAAAA AGGATCTTCA CCTAGATCCT TTTAAATTAA AAATGAAGTT

901 TTAAATCAAT CTAAAGTATA TATGAGTAAA CTTGGTCTGA CAGTTACCAA

951 TGCTTAATCA GTGAGGCACC TATCTCAGCG ATCTGTCTAT TTCGTTCATC

1001 CATAGTTGCC TGACTCCCCG TCGTGTAGAT AACTACGATA CGGGAGGGCT

1051 TACCATCTGG CCCCAGTGCT GCAATGATAC CGCGAGACCC ACGCTCACCG

1101 GCTCCAGATT TATCAGCAAT AAACCAGCCA GCCGGAAGGG CCGAGCGCAG

1151 AAGTGGTCCT GCAACTTTAT CCGCCTCCAT CCAGTCTATT AATTGTTGCC

1201 GGGAAGCTAG AGTAAGTAGT TCGCCAGTTA ATAGTTTGCG CAACGTTGTT

1251 GCCATTGCTA CAGGCATCGT GGTGTCACGC TCGTCGTTTG GTATGGCTTC

1301 ATTCAGCTCC GGTTCCCAAC GATCAAGGCG AGTTACATGA TCCCCCATGT

1351 TGTGCAAAAA AGCGGTTAGC TCCTTCGGTC CTCCGATCGT TGTCAGAAGT

1401 AAGTTGGCCG CAGTGTTATC ACTCATGGTT ATGGCAGCAC TGCATAATTC

1451 TCTTACTGTC ATGCCATCCG TAAGATGCTT TTCTGTGACT GGTGAGTACT

1501 CAACCAAGTC ATTCTGAGAA TAGTGTATGC GGCGACCGAG TTGCTCTTGC

1551 CCGGCGTCAA TACGGGATAA TACCGCGCCA CATAGCAGAA CTTTAAAAGT

1601 GCTCATCATT GGAAAACGTT CTTCGGGGCG AAAACTCTCA AGGATCTTAC

1651 CGCTGTTGAG ATCCAGTTCG ATGTAACCCA CTCGTGCACC CAACTGATCT

1701 TCAGCATCTT TTACTTTCAC CAGCGTTTCT GGGTGAGCAA AAACAGGAAG

1751 GCAAAATGCC GCAAAAAAGG GAATAAGGGC GACACGGAAA TGTTGAATAC

1801 TCATACTCTT CCTTTTTCAA TATTATTGAA GCATTTATCA GGGTTATTGT

1851 CTCATGAGCG GATACATATT TGAATGTATT TAGAAAAATA AACAAATAGG

1901 GGTTCCGCGC ACATTTCCCC GAAAAGTGCC ACCTGACGTC TAAGAAACCA

1951 TTATTATCAT GACATTAACC TATAAAAATA GGCGTATCAC GAGGCCCTTT

2001 CGTCTCGCGC GTTTCGGTGA TGACGGTGAA AACCTCTGAC ACATGCAGCT

2051 CCCGGAGACG GTCACAGCTT GTCTGTAAGC GGATGCCGGG AGCAGACAAG

2101 CCCGTCAGGG CGCGTCAGCG GGTGTTGGCG GGTGTCGGGG CTGGCTTAAC

2151 TATGCGGCAT CAGAGCAGAT TGTACTGAGA GTGCACCATA TGCGGTGTGA

2201 AATACCGCAC AGATGCGTAA GGAGAAAATA CCGCATCAGG AAXTTCCAAC

2251 ATCCAATAAA TCATACAGGC AAGGCAAAGA ATTAGCAAAA TTAAGCAATA

2301 AAGCCTCAGA GCATAAAGCT AAATCGGTTG TACCAAAAAC ATTATGACCC

2351 TGTAATACTT TTGCGGGAGA AGCCTTTATT TCAACGCAAG GATAAAAATT

2401 TTTAGAACCC TCATATATTT TAAATGCAAT GCCTGAGTAA TGTGTAGGTA

2451 AAGATTCAAA CGGGTGAGAA AGGCCGGAGA CAGTCAAATC ACCATCAATA

2501 TGATATTCAA CCGTTCTAGC TGATAAATTC ATGCCGGAGA GGGTAGCTAT

2551 TTTTGAGAGG TCTCTACAAA GGCTATCAGG TCATTGCCTG AGAGTCTGGA

2601 GCAAACAAGA GAATCGATGA ACGGTAATCG TAAAACTAGC ATGTCAATCA

2651 TATGTACCCC GGTTGATAAT CAGAAAAGCC CCAAAAACAG GAAGATTGTA

2701 TAAGCAAATA TTTAAATTGT AAACGTTAAT ATTTTGTTAA AATTCGCGTT

2751 AAATTTTTGT TAAATCAGCT CATTTTTTAA CCAATAGGCC GAAATCGGCA

2801 AAATCCCTTA TAAATCAAAA GAATAGACCG AGATAGGGTT GAGTGTTGTT

2851 CCAGTTTGGA ACAAGAGTCC ACTATTAAAG AACGTGGACT CCAACGTCAA

2901 AGGGCGAAAA ACCGTCTATC AGGGCGATGG CCCACTACGT GAACCATCAC

2951 CCTAATCAAG TTTTTTGGGG TCGAGGTGCC GTAAAGCACT AAATCGGAAC

3001 CCTAAAGGGA GCCCCCGATT TAGAGCTTGA CGGGGAAAGC CGGCGAACGT

3051 GGCGAGAAAG GAAGGGAAGA AAGCGAAAGG AGCGGGCGCT AGGGCGCTGG

3101 CAAGTGTAGC GGTCACGCTG CGCGTAACCA CCACACCCGC CGCGCTTAAT

3151 GCGCCGCTAC AGGGCGCGTA CTATGGTTGC TTTGACGAGC ACGTATAACG

3201 TGCTTTCCTC GTTAGAATCA GAGCGGGAGC TAAACAGGAG GCCGATTAAA

3251 GGGATTTTAG ACAGGAACGG TACGCCAGAA TCCTGAGAAG TGTTTTTATA

3301 ATCAGTGAGG CCACCGAGTA AAAGAGTCTG TCCATCACGC AAATTAACCG

3351 TTGTCGCAAT ACTTCTTTGA TTAGTAATAA CATCACTTGC CTGAGTAGAA

3401 GAACTCAAAC TATCGGCCTT GCTGGTAATA TCCAGAACAA TATTACCGCC

3451 AGCCATTGCA ACAGGAAAAA CGCTCATGGA AATACCTACA TTTTGACGCT

3501 CAATCGTCTG GAAXTTCCAT TCGCCATTCA GGCTGCGCAA CTGTTGGGAA

3551 GGGCGATCGG TGCGGGCCTC TTCGCTATTA CGCCAGCTGG CGAAAGGGGG

3601 ATGTGCTGCA AGGCGATTAA GTTGGGTAAC GCCAGGGTTT TCCCAGTCAC

3651 GACGTTGTAA AACGACGGCC AGTGCCAAGC TTGCATGCCT GCAGGTCGAC

3701 TCTAGAGGAT CCGGCCCCGC CCAGCGTCTT GTCATTGGCG AATTCGAACA

3751 CGCAGATGCA GTCGGGGCGG CGCGGTCCCA GGTCCACTTC GCATATTAAG

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4301 AAAAAATTTT GAACGTGCAA AAAAAATTAC CAATAATCCA GAAAATTATT

4351 ATCATGGATT CTAAAACGGA TTACCAGGGA TTTCAGTCGA TGTACACGTT

4401 CGTCACATCT CATCTACCTC CCGGTTTTAA TGAATACGAT TTTGTACCAG

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4501 TCTACTGGGT TACCTAAGGG TGTGGCCCTT CCGCATAGAA CTGCCTGCGT

4551 CAGATTCTCG CATGCCAGAG ATCCTATTTT TGGCAATCAA ATCATTCCGG

4601 ATACTGCGAT TTTAAGTGTT GTTCCATTCC ATCACGGTTT TGGAATGTTT

4651 ACTACACTCG GATATTTGAT ATGTGGATTT CGAGTCGTCT TAATGTATAG

4701 ATTTGAAGAA GAGCTGTTTT TACGATCCCT TCAGGATTAC AAAATTCAAA

4751 GTGCGTTGCT AGTACCAACC CTATTTTCAT TCTTCGCCAA AAGCACTCTG

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5251 CCCGCTGAAT TGGAATCGAT ATTGTTACAA CACCCCAACA TCTTCGACGC

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5451 GTTTGTGGAC GAAGTACCGA AAGGTCTTAC CGGAAAACTC GACGCAAGAA

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5551 TAAAATGTAA CTGTATTCAG CGATGACGAA ATTCTTAGCT ATTGTAATAA

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