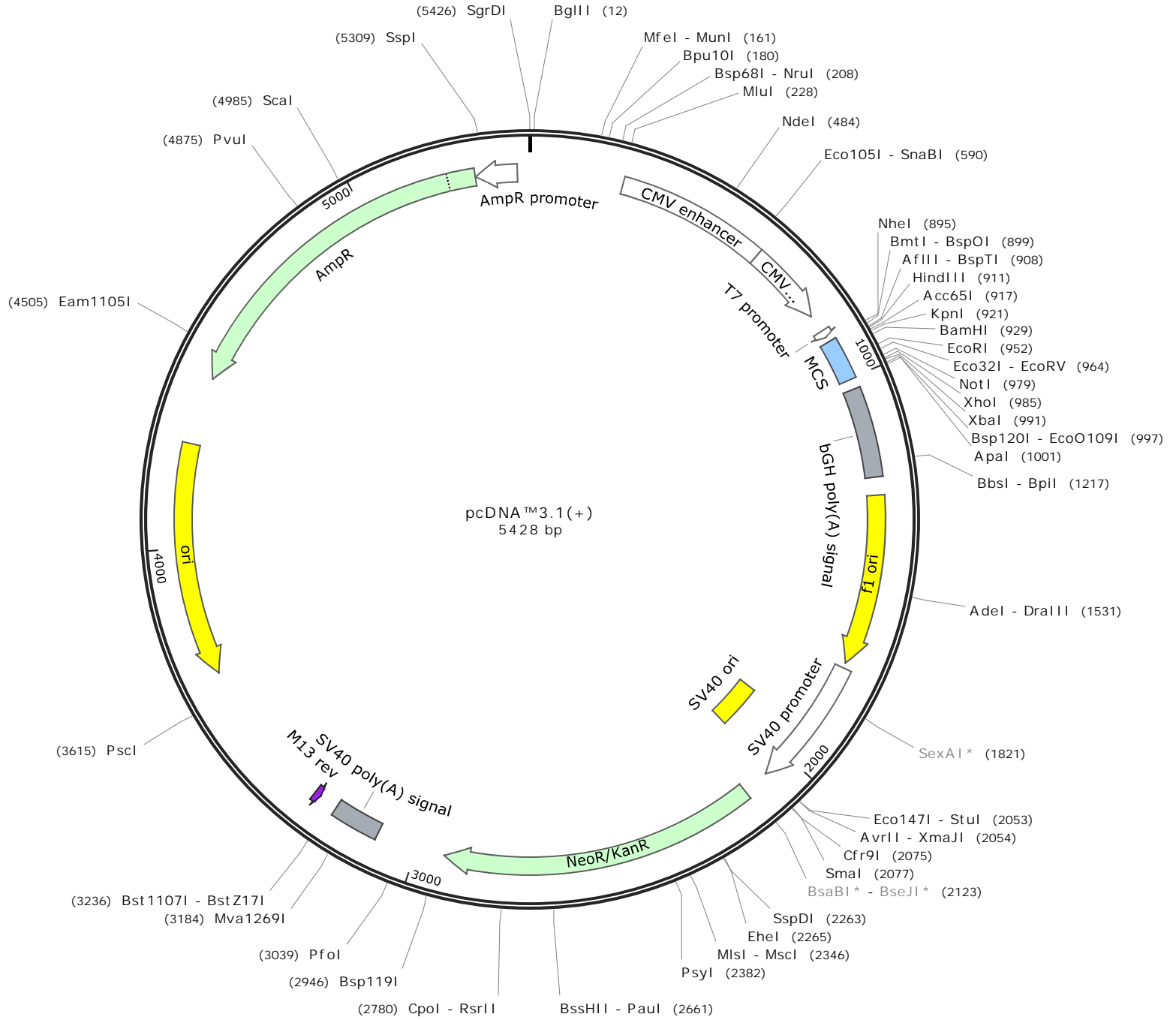
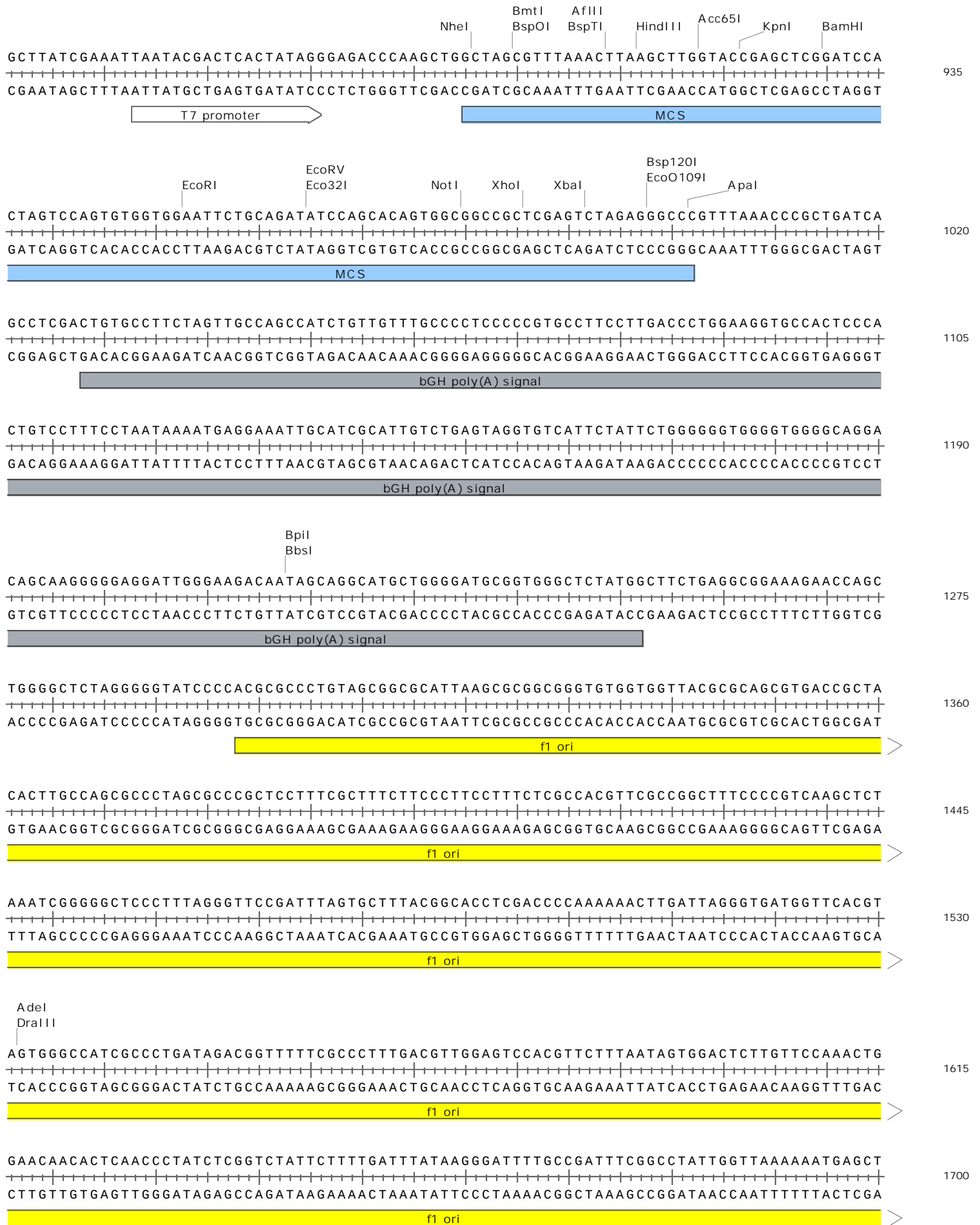


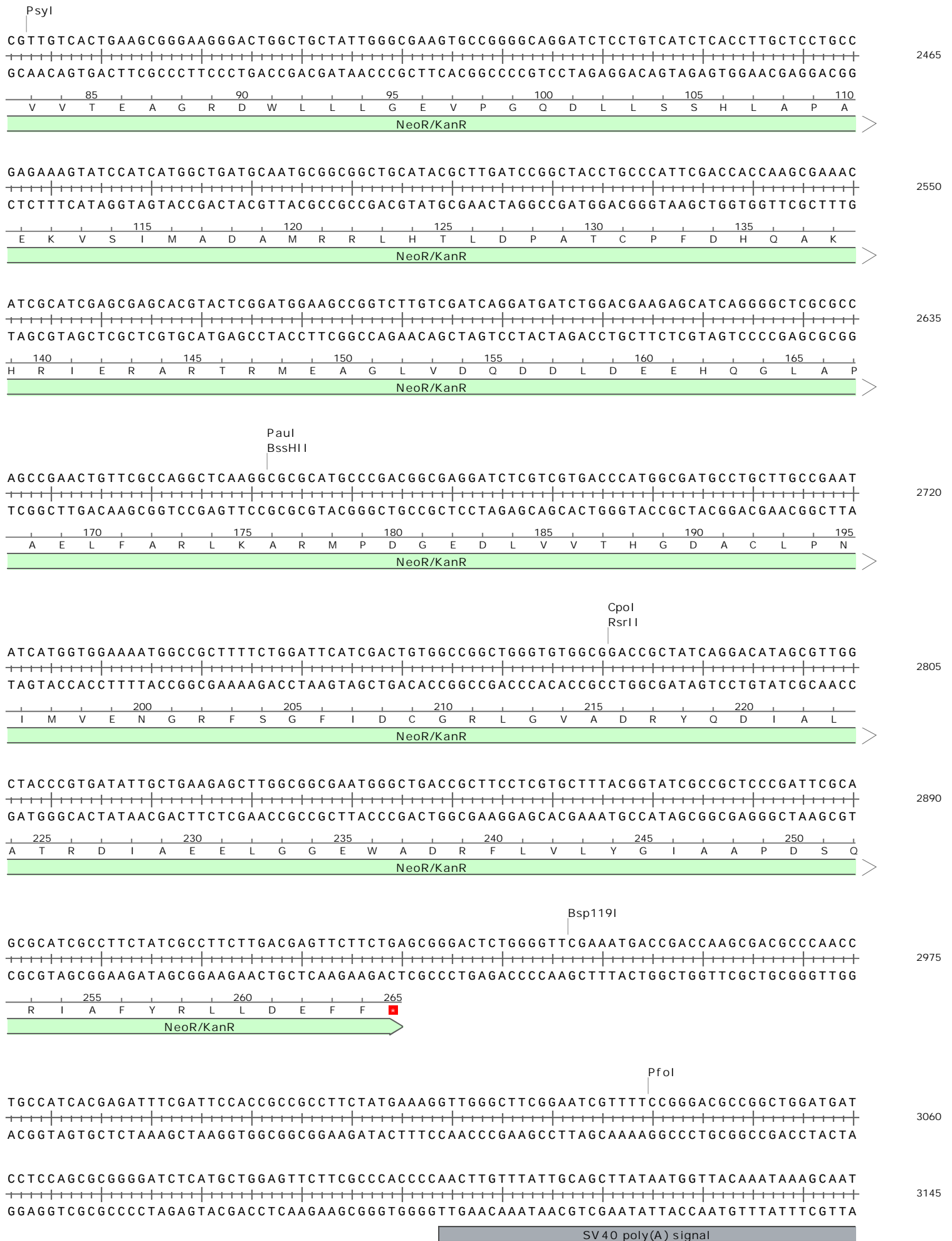
Mammalian expression vector with the CMV promoter. The MCS is in the forward (+) orientation.











Mva1269I

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 TCGTAGTGTTTAAAGTGTTTATTTTCGTAATAAAGTGACGTAAGATCAACACCAAACAGGTTTGAGTAGTTACATAGAATAGTAC

3230

SV 40 poly(A) signal

BstZ17I  
Bst1107I

TCTGTATACCGTCGACCTCTAGCTAGAGCTTGGCGTAATCATGGTCATAGCTGTTTCTGTGTGAAATTGTTATCCGCTCACAAAT  
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3315

M13 rev

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3400

TCACTGCCCCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTGCCTA  
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3485

TTGGGCGCTCTTCCGCTTCTCGCTCACTGACTCGCTGCGCTCGGTCGTTTCGGCTGCGGGGAGCGGTTATCAGCTCACTCAAAGGC  
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3570

PscI

GGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAA  
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3655

AAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAA  
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3740

ori

ACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCCGACCTGCCGCTTACC GG  
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3825

ori

ATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTT  
 TATGGACAGGCGGAAAGAGGGAAGCCCTTCGCACCGCGAAAGAGTATCGAGTGCGACATCCATAGAGTCAAGCCACATCCAGCAA

3910

ori

CGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACC  
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3995

ori

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4080

ori

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4165

ori

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4250

ori

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4335

ori

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4420

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Eam1105I

4505

285 280 275 270 265  
W H K I L S A G I E A I Q R N R E D M T A Q S G  
AmpR

CCGTCGTGTAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTCACCGGC  
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4590

AmpR

TCCAGATTTATCAGCAATAAACCCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCTGCAACTTTATCCGCTCCATCCAGTCT  
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4675

AmpR

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4760

AmpR

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4845

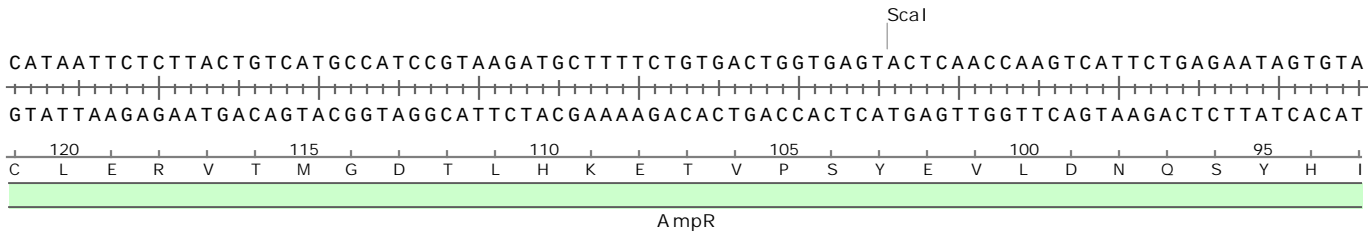
AmpR

PvuI

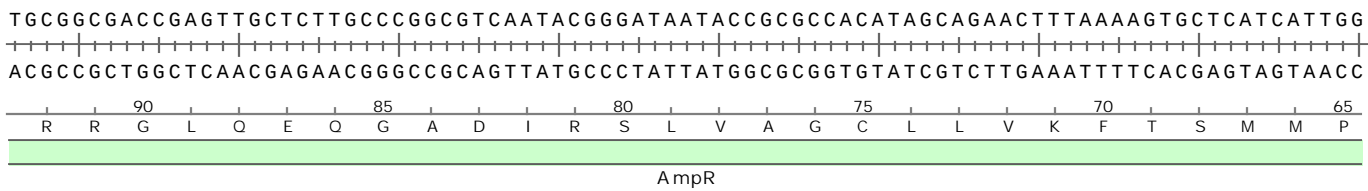
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4930

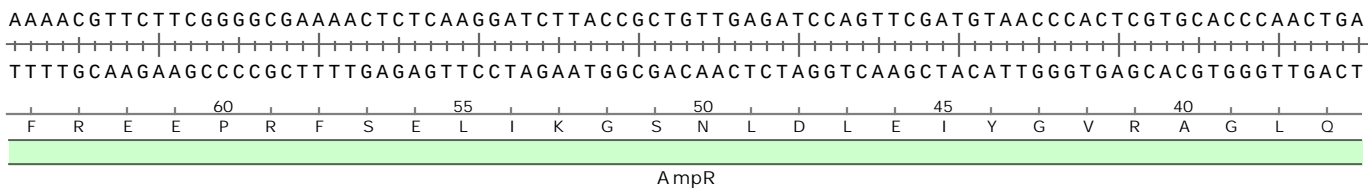
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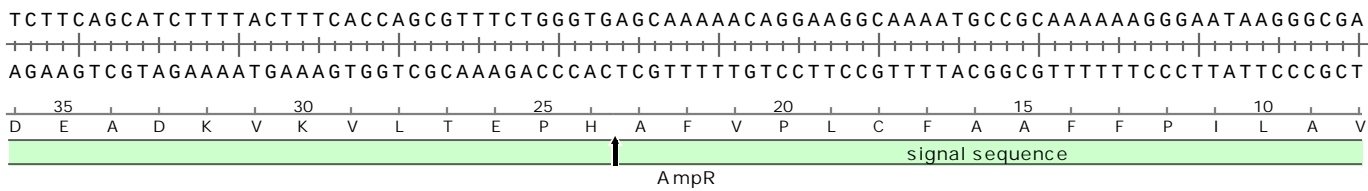
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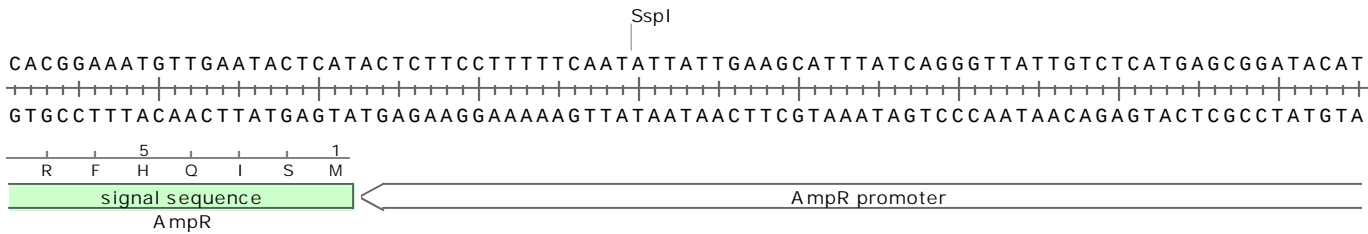
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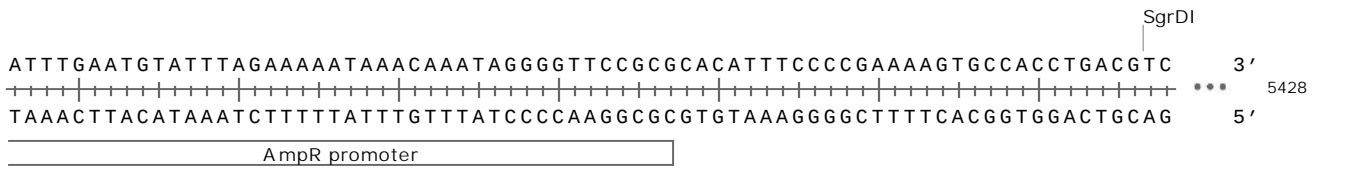
5185



5270


































5355





Enzymes	Sites	
Acc65I	1	917
AdeI	1	1531
AflIII	1	908
ApaI	1	1001
AvrII	1	2054
BamHI	1	929
BbsI	1	1217
BglII	1	12
BmtI	1	899
BpiI	1	1217
Bpu10I	1	180
BsaBI	1*	2123*
BseJI	1*	2123*
Bsp68I	1	208
Bsp119I	1	2946
Bsp120I	1	997
BspOI	1	899
BspTI	1	908
BssHII	1	2661
Bst1107I	1	3236
BstZ17I	1	3236
Cfr9I	1	2075
CpoI	1	2780
DraIII	1	1531
Eam1105I	1	4505
Eco32I	1	964
Eco105I	1	590
Eco147I	1	2053
EcoO109I	1	997
EcoRI	1	952
EcoRV	1	964
EheI	1	2265
HindIII	1	911
KpnI	1	921
MfeI	1	161
MisI	1	2346
MluI	1	228
MscI	1	2346
MunI	1	161
Mva1269I	1	3184
NdeI	1	484
NheI	1	895
NotI	1	979
NruI	1	208
PaulI	1	2661
PfoI	1	3039
PscI	1	3615
PsyI	1	2382
PvuI	1	4875
RsrII	1	2780
ScaI	1	4985
SexAI	1*	1821*
SgrDI	1	5426
SmaI	1	2077
SnaBI	1	590
SspI	1	5309
SspDI	1	2263
StuI	1	2053
XbaI	1	991
XhoI	1	985
XmaJI	1	2054

Feature	Location	Size (bp)			Type
✓ CMV enhancer /note = human cytomegalovirus immediate early enhancer	235 .. 614	380			enhancer
✓ CMV promoter /note = human cytomegalovirus (CMV) immediate early promoter	615 .. 818	204			promoter
✓ T7 promoter /note = promoter for bacteriophage T7 RNA polymerase	863 .. 881	19			promoter
✓ MCS /note = multiple cloning site	895 .. 1002	108			misc_feature
✓ bGH poly(A) signal /note = bovine growth hormone polyadenylation signal	1028 .. 1252	225			polyA_signal
✓ f1 ori /direction = RIGHT /note = f1 bacteriophage origin of replication; arrow indicates direction of (+) strand synthesis	1298 .. 1726	429			rep_origin
✓ SV40 promoter /note = SV40 enhancer and early promoter	1740 .. 2069	330			promoter
✓ SV40 ori /note = SV40 origin of replication	1920 .. 2055	136			rep_origin
✓ NeoR/ KanR /gene = aph(3')-II (or nptII) /product = aminoglycoside phosphotransferase from Tn5 /note = confers resistance to neomycin, kanamycin, and G418 (Geneticin) /translation = MIEQDGLHAGSPAAWVERLFGYDWAQQITIGCSDAAVFRLSAQGRPVLFVKTDL5GALNELQDEAARLSWLATTGVPCA AVL DVV TEAGRDWLLLGEVPGQDLLSSHLAPA EKVSIMADAMRRLHTLDPATCFD HQAKHRIERARTRMEAGLVDQDDLDEEHOGLAPAE LFARLKA RMPDGEDLVVTHGDA CLPNIMVENGRFSGFIDCGRLGVADRYQDIALATRDIAEELGGEWADRFLVLYGIAAPDSORIA FYRIIDFFF* 264 amino acids = 29.0 kDa	2136 .. 2930	795			CDS
✓ SV40 poly(A) signal /note = SV40 polyadenylation signal	3104 .. 3225	122			polyA_signal
✓ M13 rev /note = common sequencing primer, one of multiple similar variants	3274 .. 3290	17			primer_bind
✓ ori /direction = LEFT /note = high-copy-number ColE1/pMB1/pBR322/pUC origin of replication	3676 .. 4261	586			rep_origin
✓ AmpR ▶ 2 segments /gene = bla /product = -lactamase /note = confers resistance to ampicillin, carbenicillin, and related antibiotics /translation = MSIQHFRVALIPFFAAFLPVFA,HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRIDAGQE QLGRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNTAANLLTTIGGPKELTALFLHNMGDHSVTRLDRWEPELNEAIPN DERDTTTPVAMATTLRKLTLGELLTASRQQLIDWMEADK VAGPLLRSA LPA GWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIY TTGSAATMDFRNROI AFIGASI I KHW* 286 amino acids = 31.6 kDa	4432 .. 5292	861			CDS

Feature	Location	Size (bp)			Type
✓ AmpR promoter	5293 .. 5397	105	<input type="checkbox"/>		promoter
/gene = bla					

Description: Mammalian expression vector with the CMV promoter. The MCS is in the forward (+) orientation.

Created: Sunday, May 6, 2012

Last Modified: Friday, Jan 4, 2013

Accession Number:

Code Number:

Sequence Author: Invitrogen (Life Technologies)

DNA Type: Synthetic DNA

Laboratory Host Organism: Mammalian Cells

Bacterial Transformation Strain: Unspecified

Dam<sup>+</sup> Dcm<sup>+</sup> EcoKI<sup>+</sup>

Comments: The cloned gene must include a Kozak sequence and start codon.

References: