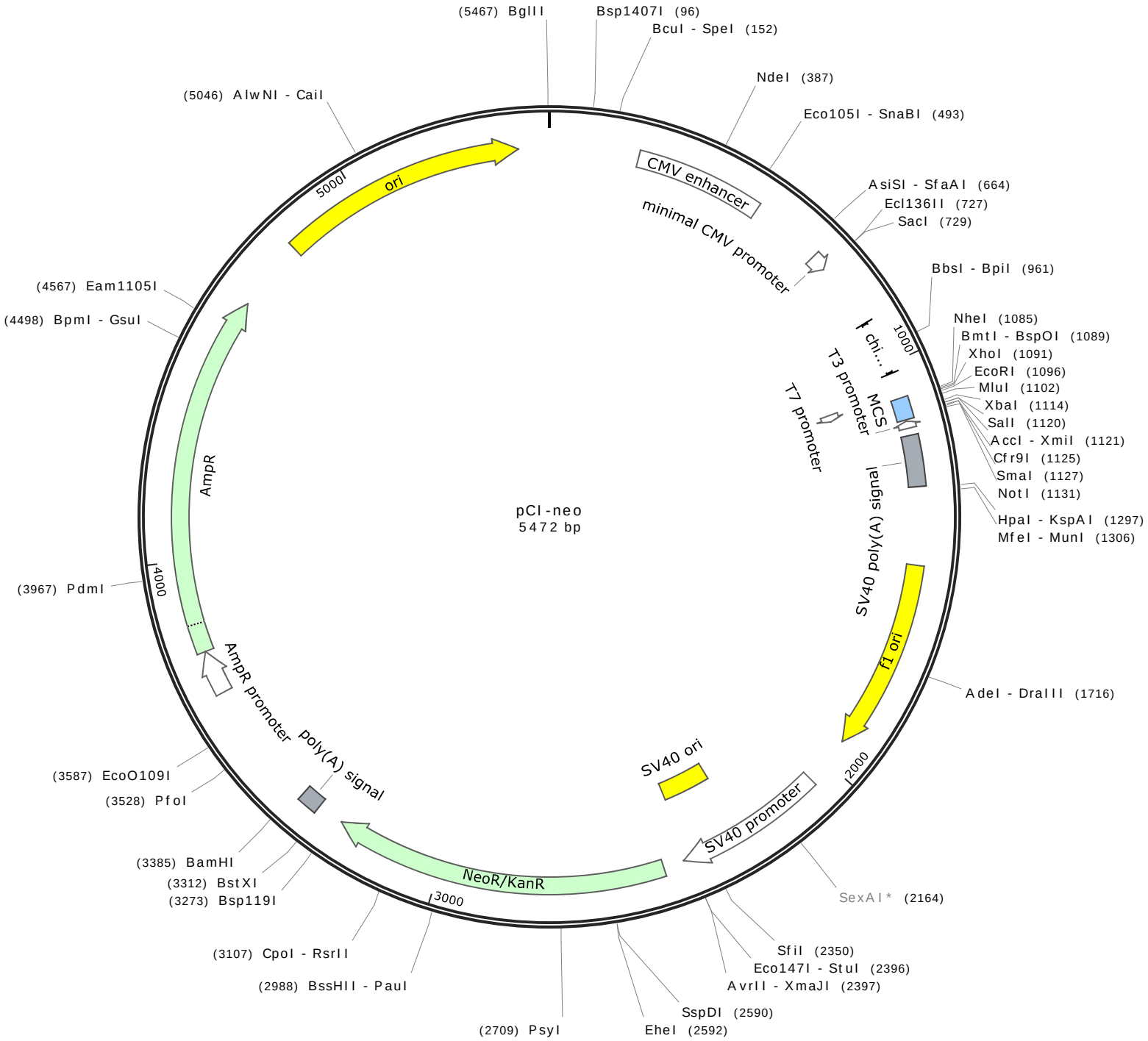
Mammalian cell expression vector with the CMV promoter and a neomycin-resistance marker.

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BcuI
SpeI
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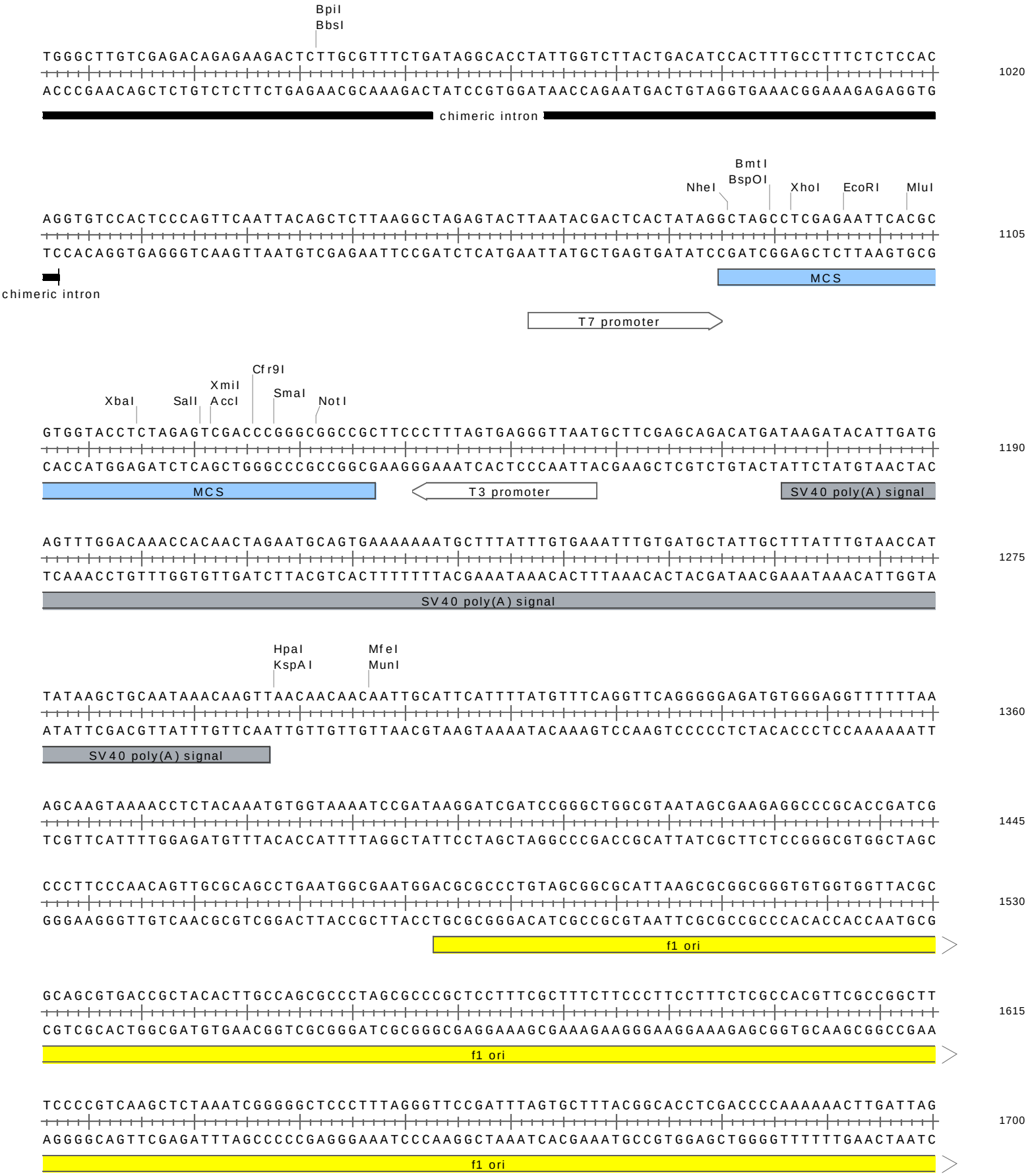
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EcoRI
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Cfr9I
XmiI
AccI
XbaI
SalI
SmaI
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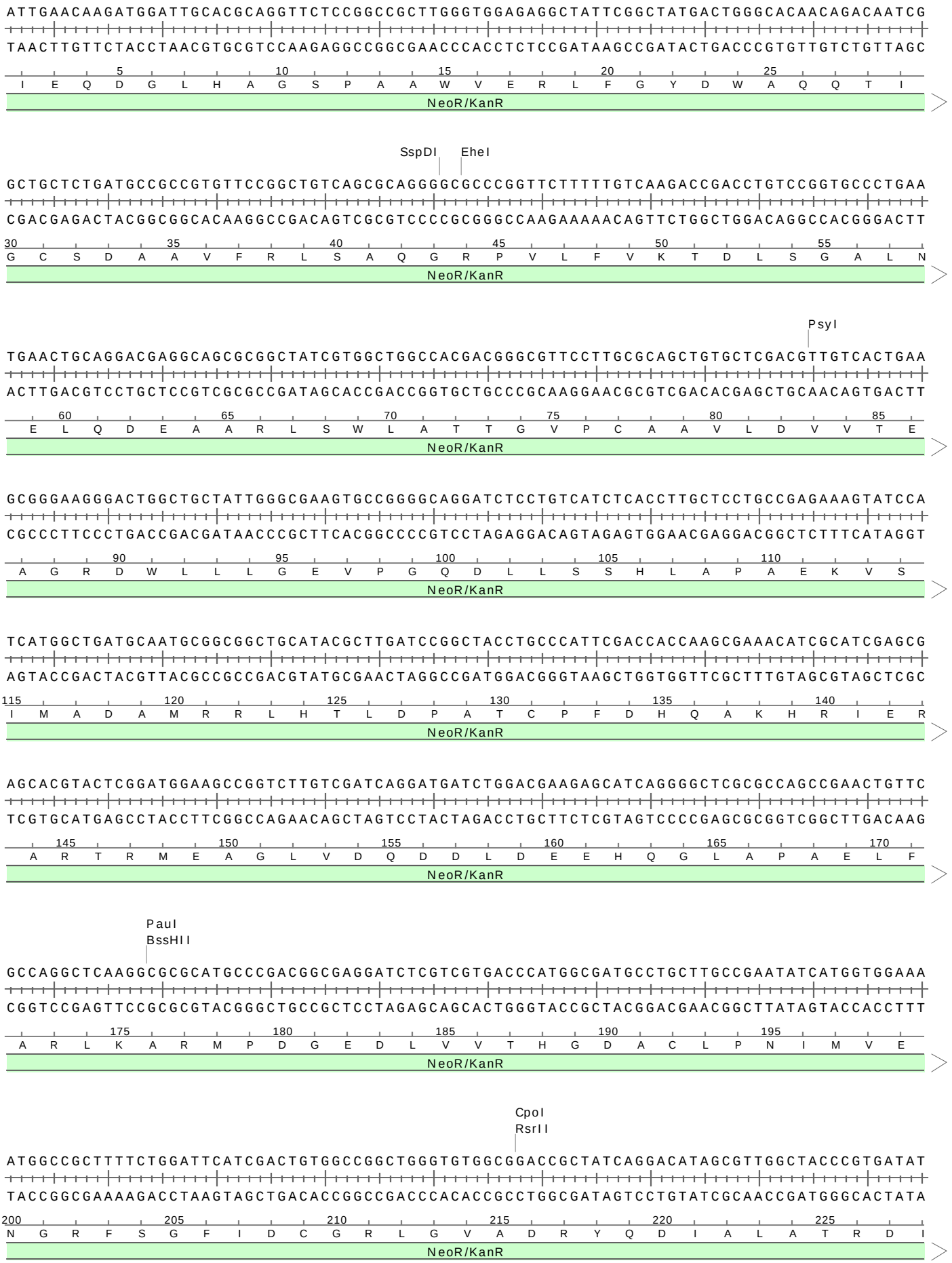
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EheI
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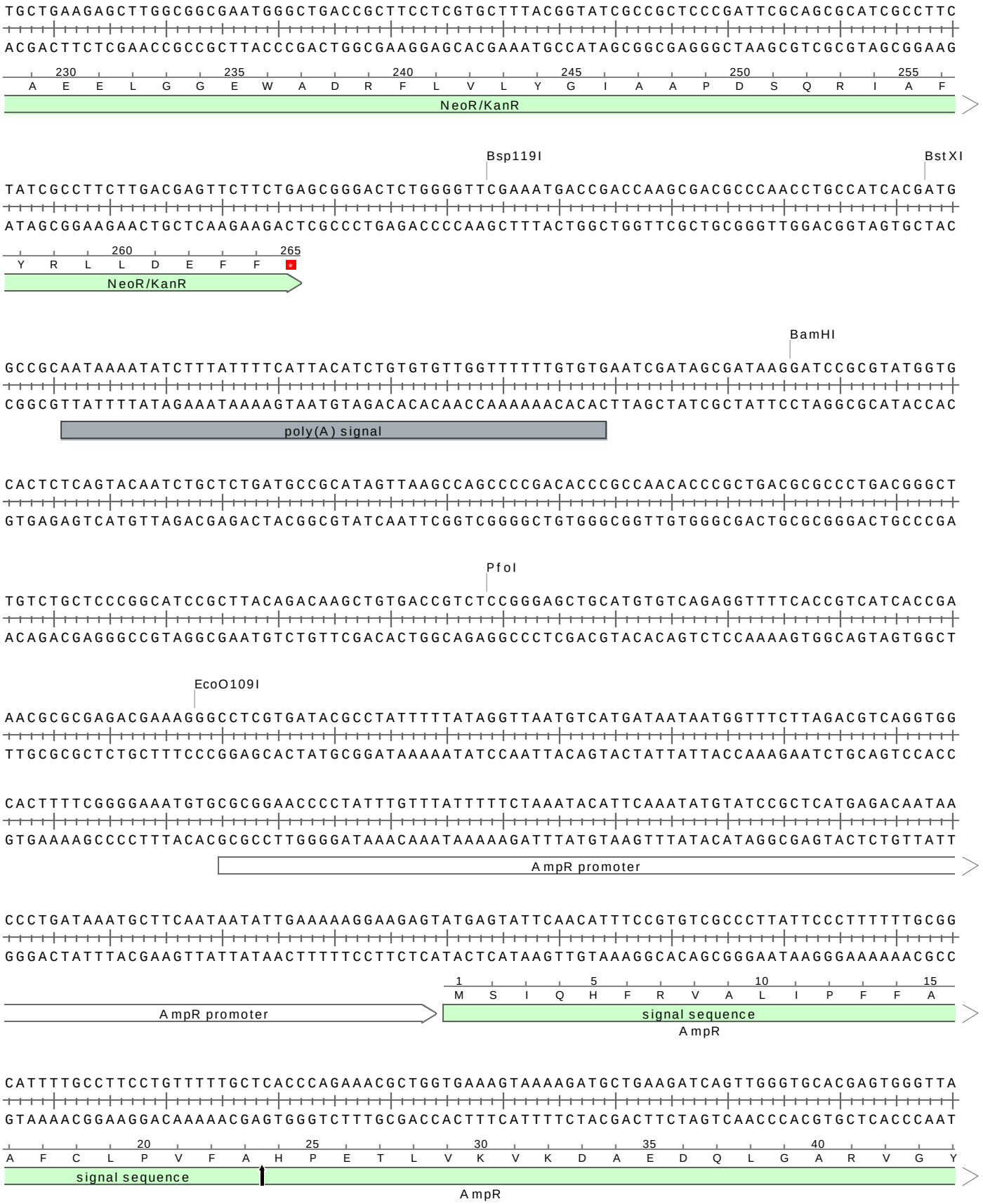
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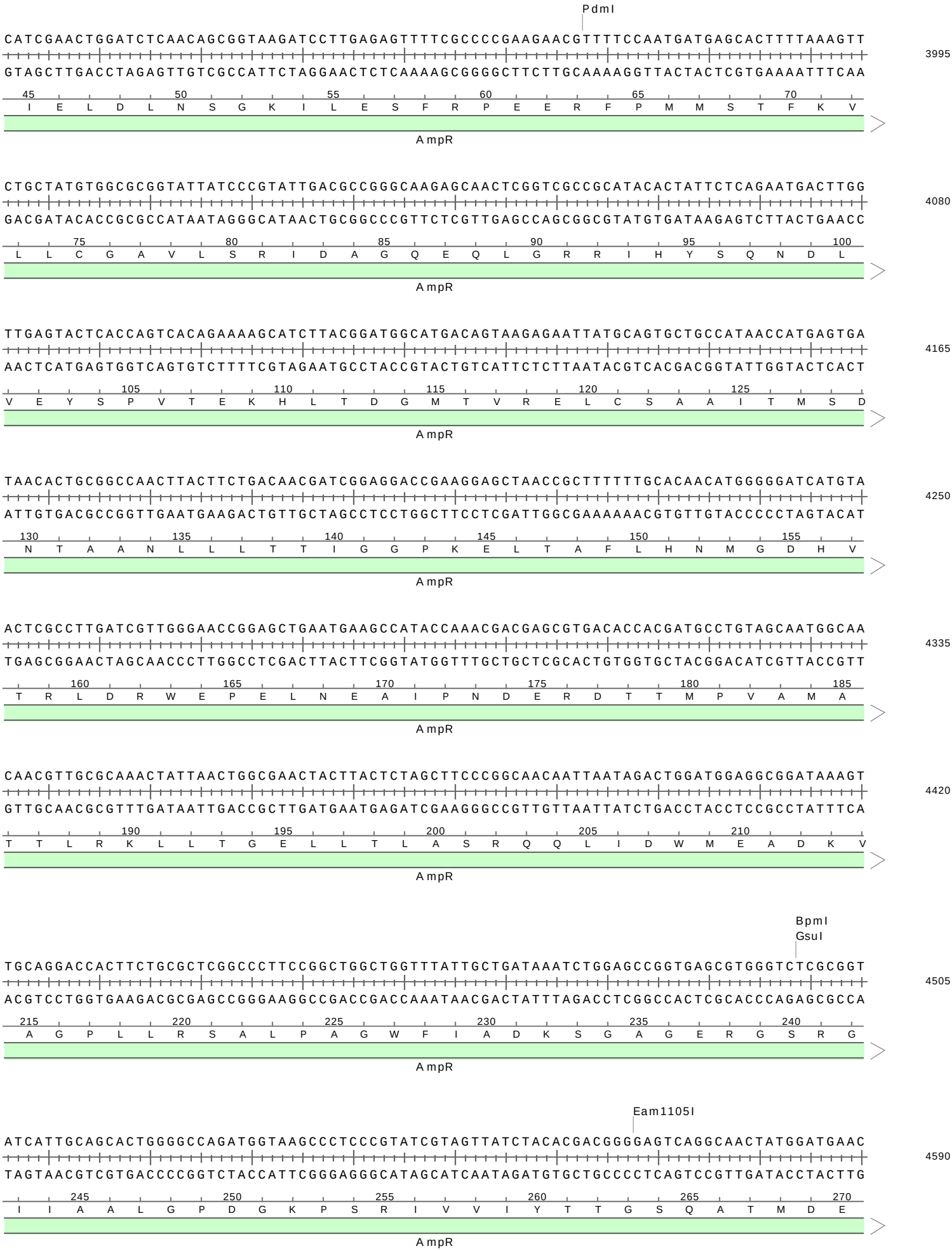
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AmpR


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Enzymes	Sites	
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AdeI	1	1716
AlwNI	1	5046
AsiSI	1	664
AvrII	1	2397
BamHI	1	3385
BbsI	1	961
BcuI	1	152
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BmtI	1	1089
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BpmI	1	4498
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BspOI	1	1089
BssHII	1	2988
BstXI	1	3312
CaiI	1	5046
Cfr9I	1	1125
CpoI	1	3107
DraIII	1	1716
Eam1105I	1	4567
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Eco105I	1	493
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EcoO109I	1	3587
EcoRI	1	1096
EheI	1	2592
GsuI	1	4498
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MunI	1	1306
NdeI	1	387
NheI	1	1085
NotI	1	1131
PauI	1	2988
PdmI	1	3967
PfoI	1	3528
PsyI	1	2709
RsrII	1	3107
SacI	1	729
SalI	1	1120
SexAI	1*	2164*
SfaAI	1	664
SfiI	1	2350
SmaI	1	1127
SnaBI	1	493
SpeI	1	152
SspDI	1	2590
StuI	1	2396
XbaI	1	1114
XhoI	1	1091
XmaJI	1	2397
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	Feature	Location	Size (bp)	Type
✓	CMV enhancer	213 .. 517	305	enhancer
	/note = human cytomegalovirus immediate early enhancer			
✓	minimal CMV promoter	691 .. 729	39	promoter
	/note = human cytomegalovirus (CMV) immediate early promoter			
✓	chimeric intron	890 .. 1022	133	intron
	/note = chimera between introns from human β-globin and immunoglobulin heavy chain genes			
✓	T7 promoter	1067 .. 1085	19	promoter
	/note = promoter for bacteriophage T7 RNA polymerase			
✓	MCS	1085 .. 1137	53	misc_feature
	/note = multiple cloning site			
✓	T3 promoter	1141 .. 1158	18	promoter
	/note = promoter for bacteriophage T3 RNA polymerase (shorter by one base than the standard T3 promoter)			
✓	SV40 poly(A) signal	1176 .. 1297	122	polyA_signal
	/note = SV40 polyadenylation signal			
✓	f1 ori	1483 .. 1938	456	rep_origin
	/direction = RIGHT			
	/note = f1 bacteriophage origin of replication; arrow indicates direction of (+) strand synthesis			
✓	SV40 promoter	2055 .. 2412	358	promoter
	/note = SV40 enhancer and early promoter			
✓	SV40 ori	2263 .. 2398	136	rep_origin
	/note = SV40 origin of replication			
✓	NeoR/KanR	2463 .. 3257	795	CDS
	/gene = aph(3')-II (or nptII)			
	/product = aminoglycoside phosphotransferase from Tn5			
	/note = confers resistance to neomycin, kanamycin, and G418 (Geneticin)			
	/translation = MIEQDGLHAGSPAAWVERLFGYDWAQQTIGCSDAAVFRLSAQGRPVLFVKTDLSGALNELQDEAARLSWLATTGVPCAAVLDVV TEAGRDWLLLGEVPGQDLLSSHLAPAEKVSIMADAMRRLHTLDPATCPFDHQAKHRIERARTRMEAGLVDQDDLDEEHQGLAPAE LFARLKARMPDGEDLVVTHGDACLPNIMVENGRFSGFIDCGRLGVADRYQDIALATRDIAEELGGEWADRFLVLYGIAAPDSQRIA FYRLLDEF* 264 amino acids = 29.0 kDa			
✓	poly(A) signal	3321 .. 3369	49	polyA_signal
	/note = synthetic polyadenylation signal			
✓	AmpR promoter	3675 .. 3779	105	promoter
	/gene = bla			

	Feature	Location	Size (bp)			Type
✓	AmpR	3780 .. 4640	861		→	CDS

2 segments

/gene = bla

/product = β-lactamase

/note = confers resistance to ampicillin, carbenicillin, and related antibiotics

/translation = MSIQHFRVALIPFFAAFCLPVFA,HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMMSTFKVLLCGAVLSRIDAGQE
QLGRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNTAANLLLTTIGGPKELTAFLHNMGDHVTRLDRWEPELNEAIPN
DERDTTMPVAMATTLRKLLTGELLTLASRQQLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIY
TTGSQATMDERNRQIAEIGASLIKHW*
286 amino acids = 31.6 kDa

✓	ori	4811 .. 5399	589		→	rep_origin

/direction = RIGHT

/note = high-copy-number ColE1/pMB1/pBR322/pUC origin of replication

Description:	Mammalian cell expression vector with the CMV promoter and a neomycin-resistance marker.
Created:	Friday, Jun 23, 2000
Last Modified:	Saturday, Jan 5, 2013
Accession Number:	U47120
Code Number:	
Sequence Author:	Promega
DNA Type:	Synthetic DNA
Laboratory Host Organism:	Mammalian Cells
Bacterial Transformation Strain:	Unspecified Dam^+ Dcm^+ $EcoKI^+$
Comments:	
References:	