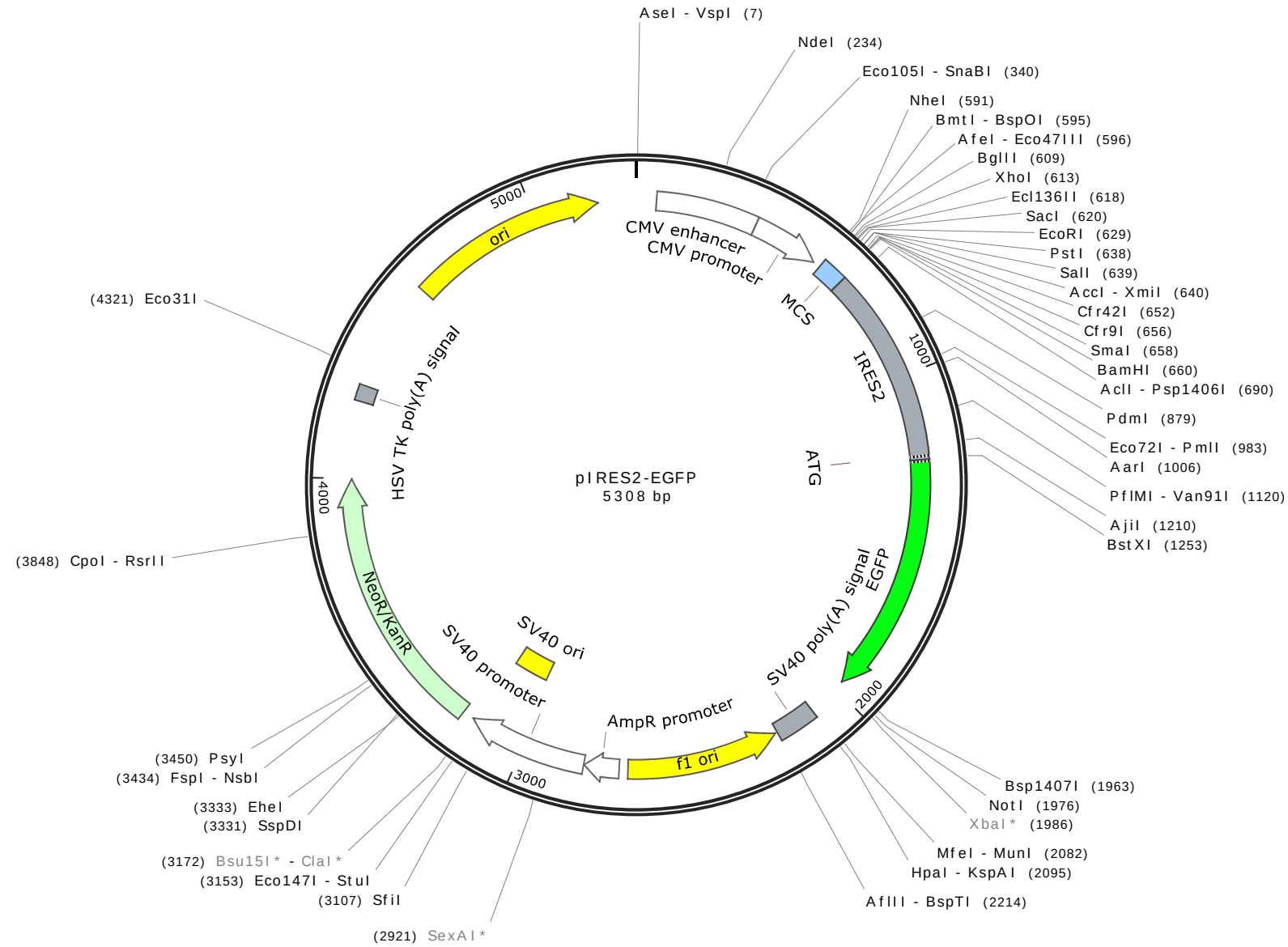
IRES-containing bicistronic vector for expressing a gene together with EGFP.

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CMV enhancer
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CMV enhancer
SnaBI
Eco105I
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NheI
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Eco47III
BglII
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AccI
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Cfr9I
SmaI
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M V S K G E E
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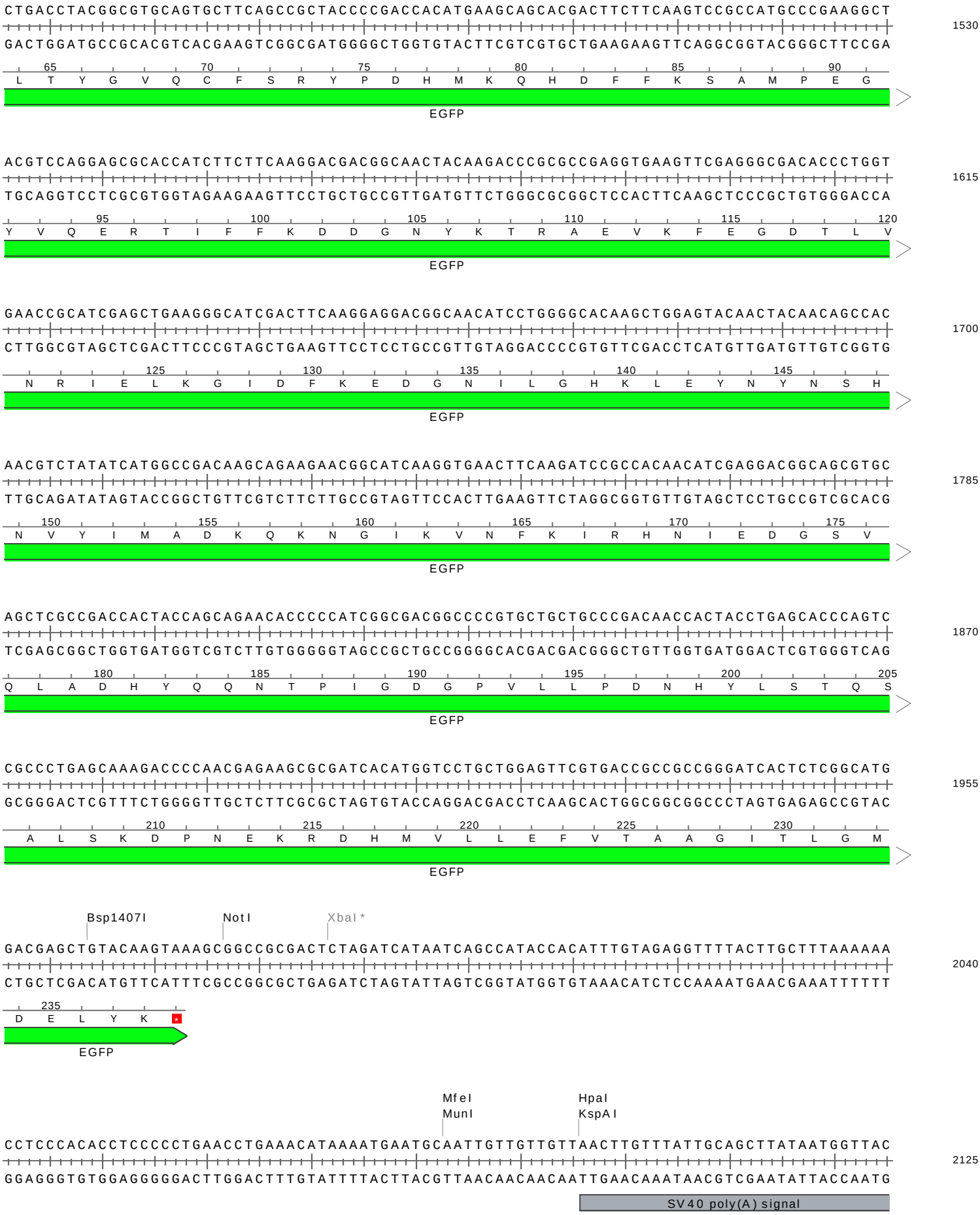
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BspTI
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f1 ori
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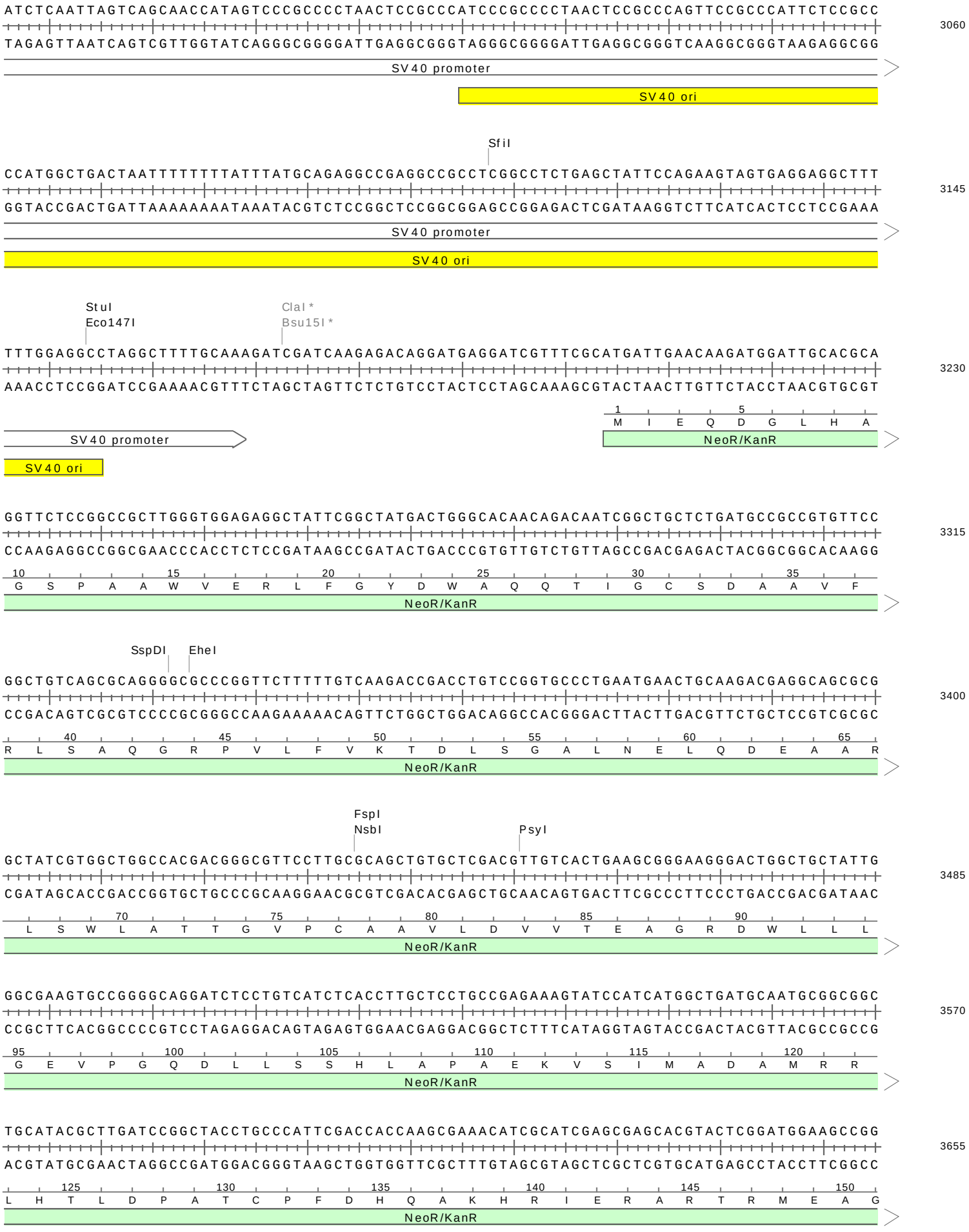
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NeoR/KanR
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SspDI
EheI
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90
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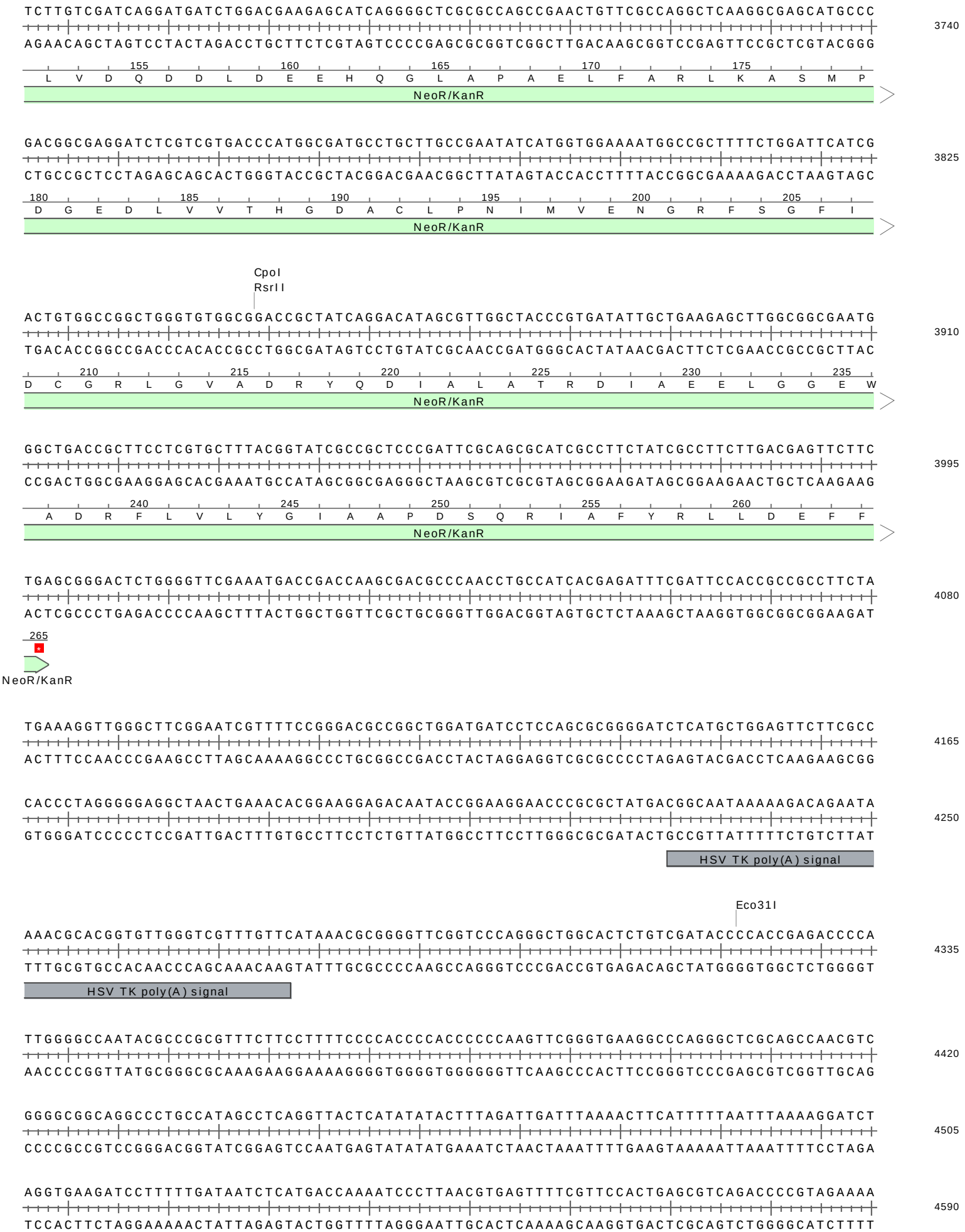
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NeoR/KanR
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NeoR/KanR
CpoI
RsrII
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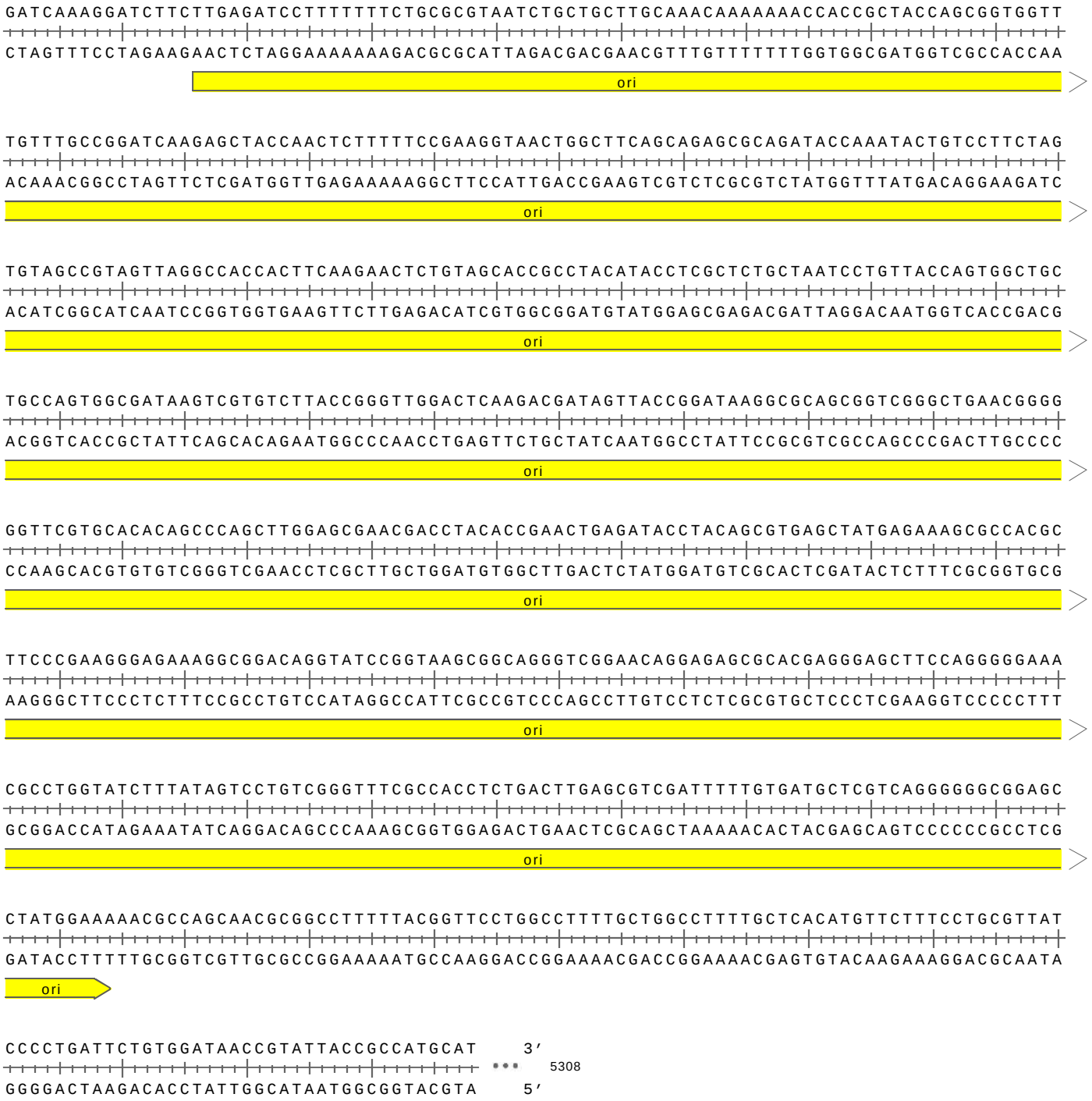
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AccI	1	640
AclI	1	690
AfeI	1	596
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AjiI	1	1210
AseI	1	7
BamHI	1	660
BglII	1	609
BmtI	1	595
Bsp1407I	1	1963
BspOI	1	595
BspTI	1	2214
BstXI	1	1253
Bsu15I	1*	3172*
Cfr9I	1	656
Cfr42I	1	652
ClaI	1*	3172*
CpoI	1	3848
Ecl136II	1	618
Eco31I	1	4321
Eco47III	1	596
Eco72I	1	983
Eco105I	1	340
Eco147I	1	3153
EcoRI	1	629
EheI	1	3333
FspI	1	3434
HpaI	1	2095
KspAI	1	2095
MfeI	1	2082
MunI	1	2082
NdeI	1	234
NheI	1	591
NotI	1	1976
NsbI	1	3434
PdmI	1	879
PflMI	1	1120
PmlI	1	983
Psp1406I	1	690
PstI	1	638
PsyI	1	3450
RsrII	1	3848
SacI	1	620
SalI	1	639
SexAI	1*	2921*
SfiI	1	3107
SmaI	1	658
SnaBI	1	340
SspDI	1	3331
StuI	1	3153
Van91I	1	1120
VspI	1	7
XbaI	1*	1986*
XhoI	1	613
XmiI	1	640

	Feature	Location	Size (bp)	Type
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	/note = human cytomegalovirus immediate early enhancer			
✓	CMV promoter	365 .. 568	204	promoter
	/note = human cytomegalovirus (CMV) immediate early promoter			
✓	MCS	591 .. 665	75	misc_feature
	/note = multiple cloning site of fluorescent protein plasmids			
✓	IRES2	667 .. 1253	587	misc_feature
	3 segments			
	/note = internal ribosome entry site (IRES) of the encephalomyocarditis virus (EMCV)			
✓	ATG	1242 .. 1244	3	CDS
	/product = start codon for translation from IRES2			
	/translation = M			
	1 amino acid = 149.2 Da			
✓	EGFP	1254 .. 1973	720	CDS
	3 segments			
	/product = enhanced GFP			
	/note = mammalian codon-optimized			
	/translation = M,V,SKGEELFTGVVPILVELDGDVNGHKFSVSGEGEGDATYGKLTLKFICTTGKLPVPWPTLVTTLTYGVQCFSRYPDHMKQHDFFK SAMPEGYVQERTIFFKDDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYIMADKQKNGIKVNFKIRHNIE DGSVQLADHYQQNTPIGDGPVLLPDNHYLSTQSALSKDPNEKRDHMVLLEFVTAAGITLGMDELYK*			
	239 amino acids = 26.9 kDa			
✓	SV40 poly(A) signal	2096 .. 2217	122	polyA_signal
	/note = SV40 polyadenylation signal			
✓	f1 ori	2224 .. 2679	456	rep_origin
	/direction = LEFT			
	/note = f1 bacteriophage origin of replication; arrow indicates direction of (+) strand syrthesis			
✓	AmpR promoter	2706 .. 2810	105	promoter
	/gene = bla			
✓	SV40 promoter	2812 .. 3169	358	promoter
	/note = SV40 enhancer and early promoter			
✓	SV40 ori	3020 .. 3155	136	rep_origin
	/note = SV40 origin of replication			
✓	NeoR/KanR	3204 .. 3998	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 LFARLKASMPDGEDLVVTHGDACLPNIMVENGRFSGFIDCGRLGVADRYQDIALATRDIAEELGGEWADRFLVLYGIAAPDSQRIA FYRLLDEF*			
	264 amino acids = 29.0 kDa			

	Feature	Location	Size (bp)	Type
✓	HSV TK poly(A) signal	4230 .. 4277	48	misc_feature
	/note = herpesvirus thymidine kinase polyadenylation signal			
✓	ori	4606 .. 5194	589	rep_origin
	/direction = RIGHT			
	/note = high-copy-number ColE1/pMB1/pBR322/pUC origin of replication			

Description:	IRES-containing bicistronic vector for expressing a gene together with EGFP.
Created:	Thursday, Sep 13, 2012
Last Modified:	Sunday, Jan 26, 2014
Accession Number:	
Code Number:	
Sequence Author:	Clontech
DNA Type:	Synthetic DNA
Laboratory Host Organism:	Mammalian Cells
Bacterial Transformation Strain:	Unspecified Dam$^+$ Dcm$^+$ EcoKI$^+$
Comments:	The gene inserted into the MCS should contain start and stop codons.
References:	