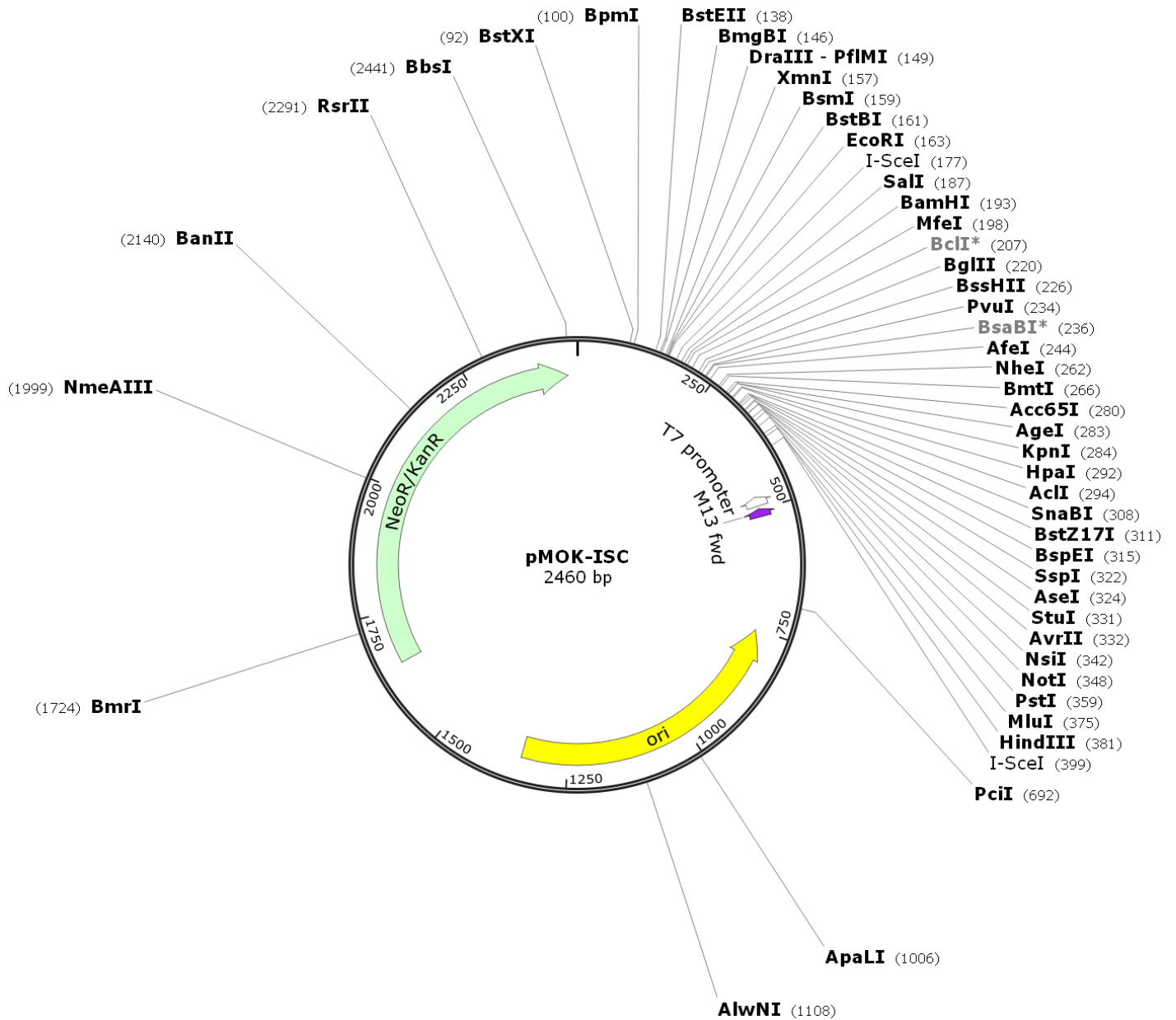


Vector: pMOK-ISC (ISC-IISC flanked linker, basal vector)

Antibiotic Selection: Kan

Creator(s): Linjuan Huang, Molecular Oncology Lab of The University of Chicago Medical Center

Date of Construction: June 2020



pMOK-ISC Vector Full-Length Sequence

GGAAACAGCTATGACCATGATTACGCCAAGCTCGAAATTACCCCTACTAAAGGGAACAAAAGCTGGTACGAGGACAGGCTGGA
GCCATGGGCATGGCTACTCAAGCTGATTTGATGGAGTTGGACATGGCCATGGCTGGTACCACGTCGTGGAATGCCTTCGAAT
TC TAGGGATAACAGGGTAAATGTCGACGGATCCAATTGCAATGATCATCATGACAGATCTGCGCGCATCGATATCAGCGCTTT
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CGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGACCTTTCGTTCAAGaatt

Zero-Cutters in pMOK-ISC:

#	Enzyme	Specificity
1	AatII	G _↓ ACGT C
2	AflII	C TTAA _↓ G
3	AelI	CACNN _↓ NNGTG
4	ApaI	G _↓ GGCC C
5	AscI	GG CGCG _↓ CC
6	AseI	GCG _↓ AT CGC
7	AvaI	C YCGR _↓ G
8	BaeI	△(N) ₅ (N) ₁₀ ACNNNNGTAYC(N) ₇ △(N) ₅
9	BbvCI	CC TCA _↓ GC
10	BcgI	△NN (N) ₁₀ CGA(N) ₆ TGC(N) ₁₀ △NN
11	BglI	GCCN _↓ NNN NGGC
12	BlnI	GC TNA _↓ GC
13	Bpu10I	CC TNA _↓ GC
14	BsaI	GGTCTCN NNN _↓
15	BseRI	GAGGAG(N) ₈ △NN _↓
16	BsgI	GTGCAG(N) ₁₄ △NN
17	BsiWI	C GTAC _↓ G
18	BsmBI	CGTCTCN NNN _↓
19	BsoBI	C YCGR _↓ G

20	BsrGI	T GTAC _↓ A
21	BstAPI	GCAN _↓ NNN NTGC
22	Bsu36I	CC TNA _↓ GG
23	BtsI	GCAGTG _↓ NN
24	CspCI	△NN (N) ₁₁ CAA(N) ₅ GTGG(N) ₁₀ △NN
25	Eco53kI	GAG _↓ CTC
26	EcoNI	CCTNN N _↓ NNAGG
27	EcoO109I	RG GNC _↓ CY
28	Esp3I	CGTCTCN NNN _↓
29	FseI	GG _↓ CCGG CC
30	NruI	TCG _↓ CGA
31	PacI	TTA _↓ AT TAA
32	PaeR7I	C TCGA _↓ G
33	PmeI	GTTT _↓ AAAC
34	PmlI	CAC _↓ GTG
35	PpuMI	RG GWC _↓ CY
36	PshAI	GACNN _↓ NNGTG
37	PsiI	TTA _↓ TAA
38	PspOMI	G GGC _↓ C
39	PspXI	VC TCGA _↓ GB

40	SacI	G \downarrow AGCT C
41	SacII	CC \downarrow GC GG
42	SbfI	CC \downarrow TGCA GG
43	ScaI	AGT \downarrow ACT
44	SexAI	A CCWGG \downarrow T
45	SfiI	GGCCN \downarrow NNN NGCC

46	SgrAI	CR \downarrow CCGG \downarrow YG
47	SmaI	CCC \downarrow GGG
48	SpeI	A CTAG \downarrow T
49	SrfI	GCCC \downarrow GGGC
50	SwaI	ATTT \downarrow AAAT
51	TspMI	C CCGG \downarrow G

Unique enzymes in pMOK-ISC:

#	Enzyme	Specificity	Sites & flanks	Cut positions (blunt - 5' ext. - 3' ext.)
1	Acc65I	G \downarrow GTAC \downarrow C	list	*280/284
2	AclI	AA \downarrow CG \downarrow TT	list	*294/296
3	AfeI	AGC \downarrow GCT	list	*244
4	AgeI	A CCGG \downarrow T	list	*283/287
5	AlwNI	CAG \downarrow NNN CTG	list	1108/1105
6	ApaLI	G \downarrow TGCA \downarrow C	list	*1006/1010
7	AseI	AT \downarrow TA \downarrow AT	list	324/326
8	AvaII	G \downarrow GWC \downarrow C	list	*2291/2294
9	AvrII	C CTAG \downarrow G	list	332/336
10	BamHI	G \downarrow GATC \downarrow C	list	193/197
11	BanII	G \downarrow RGCY C	list	2140/2136
12	BbsI	GAAGACNN NNN \downarrow	list	2441/2445
13	BclI	T \downarrow GATC \downarrow A	list	#207/211
14	BcoDI	GTTCN NNN \downarrow	list	1607/1611
15	BglII	A \downarrow GATC \downarrow T	list	220/224
16	BmgBI	CAC \downarrow GTC	list	*146
17	BmrI	ACTGGGNNNN \downarrow N	list	1724/1723
18	BmtI	G \downarrow CTAG C	list	266/262
19	BpmI	CTGGAG(N) \downarrow \downarrow 14 \downarrow NN	list	100/98
20	BsaBI	GATNN \downarrow NNATC	list	*#236
21	BsaXI	\downarrow NNN	list	297/294+327/324

		(N) \downarrow AC(N) \downarrow 5CTCC(N) \downarrow 7 \downarrow NNN		
22	BsmAI	GTTCN NNN \downarrow	list	1607/1611
23	BsmFI	GGGAC(N) \downarrow \downarrow 10 NNN \downarrow	list	1926/1930
24	BsmI	GAATG \downarrow CN	list	159/157
25	BspEI	T \downarrow CCGG \downarrow A	list	*315/319
26	BssHII	G \downarrow CGCG \downarrow C	list	*226/230
27	BstBI	TT \downarrow CG \downarrow AA	list	*161/163
28	BstEII	G \downarrow GTNAC \downarrow C	list	138/143
29	BstXI	CCAN \downarrow NNNN NTGG	list	92/88
30	BstZ17I	GTA \downarrow TAC	list	*311
31	DraIII	CAC \downarrow NNN GTG	list	*149/146
32	EcoRI	G AATT \downarrow C	list	*163/167
33	FauI	CCCGCNNNN NN \downarrow	list	*1898/1900
34	HindIII	A \downarrow AGCT \downarrow T	list	381/385
35	HpaI	GTT \downarrow AAC	list	292
36	KpnI	G \downarrow GTAC C	list	284/280
37	MfeI	C AATT \downarrow G	list	198/202
38	MluI	A \downarrow CGCG \downarrow T	list	*375/379
39	NheI	G CTAG \downarrow C	list	262/266
40	NmeAIII	GCCGAG(N) \downarrow \downarrow 19 \downarrow NN	list	2000/1998
41	NotI	GC GGCC \downarrow GC	list	*348/352
42	NsiI	A \downarrow TGCA T	list	342/338
43	PciI	A CATG \downarrow T	list	692/696

2-Cutters in pMOK-ISC

#	Enzyme	Specificity	Sites & flanks	Cut positions (blunt - 5' ext. - 3' ext.)
1	AccI	GT \downarrow MK \downarrow AC	list	*188/190, *310/312
2	AflIII	A \downarrow CRYG \downarrow T	list	*375/379, 692/696
3	AhdI	GACNN \downarrow N NNGTC	list	1585/1584, 2445/2444
4	ApoI	R AATT \downarrow Y	list	163/167, 250/254
5	BfuAI	ACCTGCNNNN NNN \downarrow	list	*1662/1666, 2043/2047
6	BsaAI	YAC \downarrow GTR	list	*308, *2079
7	BsaHI	GR \downarrow CG \downarrow YC	list	*364/366, *1775/1777
8	BseYI	C \downarrow CCAG \downarrow C	list	996/1000, 2279/2283
9	BspDI	AT \downarrow CG \downarrow AT	list	*#234/236, *370/372
10	BspMI	ACCTGCNNNN NNN \downarrow	list	1662/1666, 2043/2047
11	BsrDI	GCAATG \downarrow NN	list	210/208

				2008/2006
12	BssSI	C \downarrow ACGA \downarrow G	list	865/869, 2367/2371
13	ClaI	AT \downarrow CG \downarrow AT	list	*#234/236, *370/372
14	DrdI	GACNN \downarrow NN NNGTC	list	*800/798, 1802/1800
15	EagI	C \downarrow GGCC \downarrow G	list	*348/352, *1681/1685
16	EcoRV	GAT \downarrow ATC	list	238, 413
17	FspI	TGC \downarrow GCA	list	*252, *1877
18	HgaI	GACGC(N) \downarrow \downarrow 5 (N) \downarrow 5 \downarrow	list	*803/808, *1381/1386
19	HincII	GTY \downarrow RAC	list	*189, *292
20	KasI	G \downarrow GCGC \downarrow C	list	*363/367, *1774/1778
21	MscI	TGG \downarrow CCA	list	129, 1857
22	NaeI	GCC \downarrow GGC	list	*302, *2277
23	NarI	GG \downarrow CG \downarrow CC	list	*364/366, *1775/1777
24	NdeI	CA \downarrow TA \downarrow TG	list	342/344, 441/443

25	NgoMIV	G CCGG \blacktriangledown C	list	*300/304, *2275/2279
26	PfiFI	GACN \blacktriangledown N \blacktriangle NGTC	list	144/145, 1893/1894
27	PluTI	G \blacktriangle GCGC \blacktriangledown C	list	*367/363, *1778/1774
28	PvuII	CAG \blacktriangle CTG	list	360, 1881
29	SfoI	GGC \blacktriangle GCC	list	*365, *1776
30	SphI	G \blacktriangle CATG \blacktriangledown C	list	262/258, 2180/2176
31	Tth111I	GACN \blacktriangledown N \blacktriangle NGTC	list	144/145, 1893/1894

32	XbaI	T \blacktriangledown CTAG \blacktriangle A	list	274/278, 405/409
#	Enzyme	Specificity	Sites & flanks	Cut positions (blunt - 5' ext. - 3' ext.)
1	AclI	GT \blacktriangledown MK \blacktriangle AC	list	*188/190, *310/312
2	AflIII	A \blacktriangledown CRYG \blacktriangle T	list	*375/379, 692/696
3	AhdI	GACNN \blacktriangle N \blacktriangledown NNGTC	list	1585/1584, 2445/2444