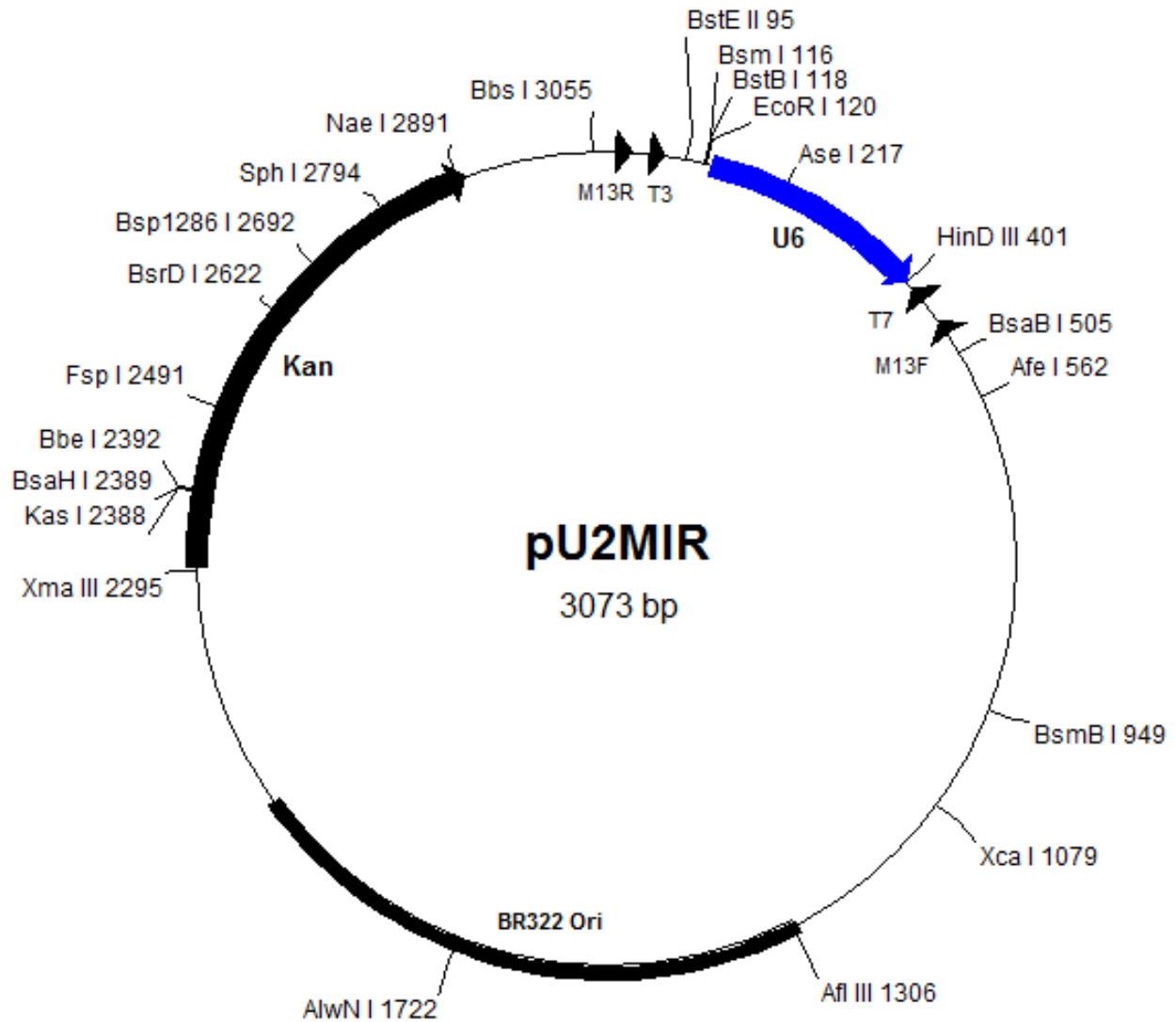


**Vector:** pU2MIR (U6 promoter template)

**Antibiotic Selection:** Kan

**Creator(s):** Xian Chen, Molecular Oncology Lab of The University of Chicago Medical Center

**Date of Construction:** June, 2013



## pU2MIR Full-Length Sequence

GGAAACAGCTATGACCATGATTACGCCAAGCTCGAAATTAACCCCTACTAAAGGGAACAAAAGCTGGTACGAGGACAGGCTG  
GAGCCATGGCTGGTACCACGTCGTGGAATGCCTTCGAATTCttttttt**aaggtcgggcaggaagagggcctattttcccatga**  
**ttccttcatatttgcataacgatacaaggctgtagagagataattagaattaatttgactgtaaacacaaagatattagt**  
**acaaaatacgtgacgtagaaagtaataatttcttgggtagtttgcagttttaaattatgttttaaattggactatcatatg**  
**cttaccgtaacttgaagattttcgatttcttggctttatataatctt**gtggaaaggaaaggaCGAAACACC**AAGCTT**GCCTA  
ATCGGACGAAAAATGACCATGATTACGCCAAGCTCCAAATTCGCCCTATAGTGAGTCGTATTACAATTCACCTGGCCGTCGTT  
TTACCCGGATCTGCATCGCAGGATGCTGCTGGCTACCCGTGGAAACACCTACATCTGTATTAAACGAAGCGCTGGCATTGACC  
CTGAGTGATTTTTCTCTGGTCCC GCCATCCATACC GCCAGTTGTTTACCCTCACAAACGTTCCAGTAACCGGGCATGTTCA  
TCATCAGTAACCCGTATCGTGAGCATCCTCTCTCGTTTTCATCGGTATCATTACCCCATGAACAGAAAATCCCCCTTACACGG  
AGGCATCAGTGACCAACAGGAAAAACCGCCCTTAACATGGCCCGCTTTATCAGAAGCCAGACATTAACGCTTCTGGAGAA  
ACTCAACGAGCTGGACCGGATGAACAGGCAGACATCTGTGAATCGTCCCGGAGACGGTACAGCTGTGTCTGTAAGCGGATG  
CTCGCGCTTTTCGGTGATGACGGTGAAAACCTGACACATGCAGCTCCCGGAGACGGTACAGCTGTGTCTGTAAGCGGATG  
CCGGGAGCAGACAAGCCCGTCAGGGCGCTCAGCGGGTGTGGCGGGTGTCCGGGCGCAGCCATGACCCAGTCACGTAGCGA  
TAGCGGAGTGATACTGGCTTAACTATGCGGCATCAGAGCAGATTGTACTGAGAGTGCACCATATGCGGTGTGAAAATACCGC  
ACAGATGCGTAAGGAGAAAAATACCGCATCAGGCGCTCTCCGCTTCCCTCGTCACTGACTCGTGCCTCGGTGCTTCGGCT  
GCGGCGAGCGGTATCAGCTCACTCAAAGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAATGTGA  
GCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGC  
ATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTC  
CCTCGTGCCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGTTTTCT  
CATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGC  
CCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAAGACACGACTTATCGCCACTGGCAGCAGCCAC  
TGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCCTTGAAGTGGTGGCCTAACTACGGCTACACTAGA  
AGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAA  
CCACCGCTGGTAGCGGTGGTTTTTTTTGTTTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGAT  
CTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAATCACGTTAAGGGATTTTGGTTCATGAGATTATCAAAAAGGATCTTC  
ACCTAGATCCTTTTAAATTAATAAATGAAGTTTTTAAATCAATCTAAAGTATATATGAGTAAACTGGTCTGACAGTTACCAAT  
GCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTCCATCCATAGTTGCCT**GAC**TC**CCC****GTC**ATTCAAATATG  
TATCCGCTCATGAGACAATAACCTGATAAATGCTCAATAATA**TATG**ATTGAACAAGATGGATTGCACGCAGTGTCTCCGG  
CCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAAATCGGCTGCTCTGATGCCCGCTTCCGGCTC  
AGCGCAGGGGCGCCCGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAACGCAAGACGAGGCAGCGCGCTA  
TCGTGGCTGGCCACGACGGGCTTCCCTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGAAAGGGACTGGCTGCTATTGG  
GCGAAGTGCCGGGGCAGGATCTCCTGTCTATCTCACCTTGTCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCG  
GCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAA  
GCCGGTCTTGTCGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACGTTCCGCCAGGCTCAAGGCGA  
GCATGCCCGACGGCGAGGATCTCGTCTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTC  
TGGATTTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAG  
CTTGGCGGCGAATGGGCTGACCGCTTCCCTCGTGTCTTACGGTATCGCCGCTCCCGATTTCGCAGCGCATCGCTTCTATCGCC  
TTCTTGACGAGTCTTC**TGACCTT**TC**GTCTTC**AAGaatt

### Unique enzymes in pU2MIR:

BstE II	G`GTNAC,C	95
PflM I	CCAN,NNN`NTGG	106
Dra III	CAC,NNN`GTG	106
Bsm I	GAATG,C 7	116
BsiC I	TT`CG,AA	118
BstB I	TT`CG,AA	118
Apo I	R`AATT,Y	120
EcoR I	G`AATT,C	120
EcoO109 I	RG`GNC,CY	149
Ase I	AT`TA,AT	217
Vsp I	AT`TA,AT	217
HinD III	A`AGCT,T	401
BsaB I	GATNN NNATC	505
Afe I	AGC GCT	562
Eco47 III	AGC GCT	562
Psp1406 I	AA`CG,TT	633
BsmB I	CGTCTC 7/11	949
Acc I	GT`MK,AC	1078
Bst1107 I	GTA TAC	1079
Xca I	GTA TAC	1079
Afl III	A`CRYG,T	1306
AlwN I	CAG,NNN`CTG	1722
Eag I	C`GGCC,G	2295

Xma III	C`GGCC,G	2295
Kas I	G`GCGC,C	2388
Aha II	GR`CG,YC	2389
BsaH I	GR`CG,YC	2389
HinI I	GR`CG,YC	2389
Nar I	GG`CG,CC	2389
Ehe I	GGC GCC	2390
Bbe I	G,GCGC`C	2392
Msc I	TGG CCA	2471
Fsp I	TGC GCA	2491
BsrD I	GCAATG, 8	2622
Bsp1286 I	G,DGCH`C	2692
Ban II	G,RGCY`C	2754
Sph I	G,CATG`C	2794
Msl I	CAYNN NNRTG	2826
NgoM I	G`CCGG,C	2889
Nae I	GCC GGC	2891
Rsr II	CG`GWC,CG	2905
Ebs I	GAAGAC 8/12	3055
Bbv II	GAAGAC 7/11	3056
Number of enzymes = 43		

The following enzymes do not cut in pU2MIR:

Aat II	Acc65 I	Afl II	Age I	Apa	Bsm I	(1)	116				
I					BsmA I	(2)	950	2222			
Asc I	Asp718	Ava I	Avr II		BsmB I	(1)	949				
BamH I					BsmF I	(2)	579	2540			
Bcl I	Bgl I	Bgl II	Blp I	Bsa	BsoF I	(30)	519	600	897	900	
I							946	1043	1096	1212	
BseR I	Bsg I	BsiW I	Bsp120 I				1230	1233	1351	1506	
BspM II							1649	1714	1717	1923	
BsrG I	BssH II	BstX I	Bsu36 I	Cla			2298	2350	2361	2451	
I							2456	2493	2534	2621	
Eco72 I	EcoN I	EcoR V	Esp I	Fse			2624	2627	2863	2959	
I							3000	3014			
HinC II	Hind II	Hpa I	Kpn I	Mlu	Bsp1286 I	(1)	2692				
I					BspH I	(2)	2026	2223			
Mun I	Nhe I	Not I	Nru I	Nsi	BspM I	(2)	2276	2657			
I					Bsr I	(10)	485	615	639	1054	
Pac I	Paer7 I	Pme I	Pml I				1085	1713	1726	1840	
PpuM I							2332	2533			
PspA I	Pst I	Pvu I	Sac I	Sac	BsrB I	(3)	1239	2221	3002		
II					BsrD I	(1)	2622				
Sal I	Sca I	Sfi I	Sma I		BssS I	(2)	1479	2981			
SnaB I					Bst1107 I	(1)	1079				
Spe I	Spl I	Srf I	Ssp I	Stu	BstB I	(1)	118				
I					BstE II	(1)	95				
Swa I	Xba I	Xcm I	Xho I	Xma	BstN I	(4)	1334	1455	1468	2776	
I					BstU I	(8)	838	907	909	1012	
							1353	1934	2455	2756	
							2056	2560	2806		
					BstY I	(7)	500	1947	1958	2044	
							2056	2560	2806		
					Cac8 I	(18)	405	523	565	783	
Acc I	(1)	1078					1237	1323	1360	1920	
Aci I	(40)	597	600	611	767		2283	2469	2688	2754	
		783	838	894	979		2760	2788	2792	2833	
		1018	1028	1070	1095		2837	2891			
		1133	1146	1172	1189		2708	2889			
		1232	1239	1260	1351	Cfr10 I	(2)	2708	2889		
		1379	1506	1525	1646	Csp6 I	(4)	68	246	1113	2694
		1756	1891	1900	2219	Dde I	(5)	576	1116	1581	1990
		2298	2361	2455	2519		2156				
		2620	2623	2863	2903	Dpn I	(13)	502	1874	1949	1960
		2908	2958	2974	3000		1968	2046	2058	2163	
							2562	2640	2721	2730	
Afe I	(1)	562					2808				
Afl III	(1)	1306					500	1872	1947	1958	
Aha II	(1)	2389				DpnII	(13)	1966	2044	2056	2161
Ahd I	(2)	2199	3059				2560	2638	2719	2728	
Alu I	(17)	9	31	64	403		2806				
		444	831	888	899		298	311	2065	2084	
		948	967	1248	1474	Dra I	(4)	298	311	2065	2084
		1564	1610	1867	2495	Dra III	(1)	106			
		2953				Drd I	(3)	1001	1414	2416	
Alw I	(9)	507	1868	1954	1954	Dsa I	(2)	87	2821		
		2051	2052	2567	2634	Eae I	(5)	483	2295	2469	2860
		2813					2887				
AlwN I	(1)	1722				Eag I	(1)	2295			
ApaL I	(2)	1122	1620			Ear I	(4)	139	1190	2733	2943
Apo I	(1)	120				Eco47 III	(1)	562			
Ase I	(1)	217				Eco57 I	(3)	1853	2534	2966	
Ava II	(2)	593	2905			EcoO109 I	(1)	149			
Ban I	(3)	2147	2388	2423		EcoR I	(1)	120			
Ban II	(1)	2754				EcoR II	(4)	1332	1453	1466	2774
Bbe I	(1)	2392				Ehe I	(1)	2390			
Bbs I	(1)	3055				Fnu4H I	(30)	519	600	897	900
Bbv I	(9)	908	957	1054	1725		946	1043	1096	1212	
		1728	1934	2462	2504		1230	1233	1351	1506	
		3025					1649	1714	1717	1923	
Bbv II	(1)	3056					2298	2350	2361	2451	
Bcn I	(7)	499	647	953	988		2456	2493	2534	2621	
		1687	2394	2554			2624	2627	2863	2959	
Bfa I	(2)	1801	2054				3000	3014			
Bpm I	(2)	102	835			Fok I	(8)	527	589	667	853
BsaA I	(3)	256	1060	2693			994	2165	2713	2738	
BsaB I	(1)	505				Fsp I	(1)	2491			
BsaH I	(1)	2389				Gdi II	(5)	482	2294	2296	2859
BsaJ I	(4)	87	1466	2552	2821		2886				
BsaW I	(3)	1512	1659	2420		Gsu I	(2)	101	834		
BsiC I	(1)	118				Hae I	(4)	1321	1332	1784	2471
BsiE I	(3)	1222	1646	2298		Hae II	(4)	564	1184	1554	2392
BsiHKA I	(4)	1126	1624	2502	2692	Hae III	(11)	151	485	781	1321

pU2MIR: sites sorted by name:

		1332	1350	1784	2297		2471	2862	2889		
		2471	2862	2889		PflM I	(1)	106			
Hga I	(4)	843	1002	1416	1994	Ple I	(2)	472	1685		
HgiA I	(4)	1126	1624	2502	2692	Psp1406 I	(1)	633			
HgiE II	(2)	1124	1885			Pvu II	(2)	899	2495		
Hha I	(17)	563	909	1012	1042	Rsa I	(4)	69	247	1114	2695
		1183	1216	1486	1553	Rsr II	(1)	2905			
		1653	1827	1936	2383	Sap I	(3)	1190	2733	2943	
		2391	2455	2492	2758	Sau3A I	(13)	500	1872	1947	1958
		3018						1966	2044	2056	2161
HinD III	(1)	401						2560	2638	2719	2728
Hinf I	(9)	164	464	862	1206			2806			
		1281	1677	2194	2874	Sau96 I	(4)	149	593	780	2905
		3008				ScrF I	(11)	498	646	952	987
HinI I	(1)	2389						1334	1455	1468	1686
HinP I	(17)	561	907	1010	1040			2393	2553	2776	
		1181	1214	1484	1551	Sec I	(4)	87	1466	2552	2821
		1651	1825	1934	2381	SfaN I	(16)	506	514	610	688
		2389	2453	2490	2756			750	973	1106	1144
		3016						1182	1402	2348	2603
Hpa II	(16)	498	645	952	986			2687	2751	2819	3026
		1513	1660	1686	1876	Sfc I	(3)	457	1571	1762	
		2294	2371	2393	2421	Sph I	(1)	2794			
		2552	2642	2709	2890	Sty I	(2)	87	2821		
Hph I	(5)	106	927	936	2043	Taq I	(9)	33	118	352	1406
		2568						2502	2658	2682	2718
		2388						2880			
Kas I	(1)	2388									
Mae I	(2)	1801	2054			Tfi I	(5)	164	862	1281	2874
Mae II	(8)	102	255	260	633			3008			
		1059	2009	2505	2692	Tsp45 I	(7)	95	256	747	960
Mae III	(14)	95	256	335	640			1055	2509	2815	
		663	747	960	1055	Tth111 I	(3)	101	1053	2507	
		1662	1725	1841	2124	Tth111 II	(5)	768	1895	1904	1934
		2509	2815					2825			
Mbo I	(13)	500	1872	1947	1958	Vsp I	(1)	217			
		1966	2044	2056	2161	Xca I	(1)	1079			
		2560	2638	2719	2728	Xho II	(7)	500	1947	1958	2044
		2806						2056	2560	2806	
Mbo II	(8)	155	1178	1967	2040	Xma III	(1)	2295			
		2749	2959	3041	3056	Xmn I	(2)	114	866		
Mme I	(2)	1520	1704								
Mnl I	(17)	53	65	140	635						
		693	732	912	942						
		1204	1414	1487	1738						
		2138	2304	2440	2797						
		2989									
Msc I	(1)	2471									
Mse I	(14)	39	130	217	297						
		310	553	773	805						
		1087	2012	2064	2069						
		2083	2136								
Msl I	(1)	2826									
Msp I	(16)	498	645	952	986						
		1513	1660	1686	1876						
		2294	2371	2393	2421						
		2552	2642	2709	2890						
MspAl I	(5)	899	1018	1648	1893						
		2495									
Nae I	(1)	2891									
Nar I	(1)	2389									
Nci I	(7)	498	646	952	987						
		1686	2393	2553							
Nco I	(2)	87	2821								
Nde I	(2)	325	1129								
Ngom I	(1)	2889									
Nla III	(16)	20	91	164	433						
		653	717	780	945						
		1050	1310	2030	2227						
		2608	2794	2825	2851						
Nla IV	(7)	85	595	1338	1377						
		2149	2390	2425							
Nsp7524 I	(4)	649	941	1306	2790						
NspB II	(5)	899	1018	1648	1893						
		2495									
NspH I	(4)	653	945	1310	2794						
Pal I	(11)	151	485	781	1321						
		1332	1350	1784	2297						

Site usage in pU2MIR:

Aat II	G,ACGT`C	-	Acc I	GT`MK,AC	1
Acc65 I	G`GTAC,C	-	Aci I	C`CG,C	40
Afe I	AGC GCT	1	Afl II	C`TTAA,G	-
Afl III	A`CRYG,T	1	Age I	A`CCGG,T	-
Aha II	GR`CG,YC	1	Ahd I	GACNN,N`NNGTC	2
Alu I	AG CT	17	Alw I	GGATC 8/9	9
AlwN I	CAG,NNN`CTG	1	Apa I	G,GGCC`C	-
ApaL I	G`TGCA,C	2	Apo I	R`AATT,Y	1
Asc I	GG`CGCG,CC	-	Ase I	AT`TA,AT	1
Asp718	G`GTAC,C	-	Ava I	C`YCGR,G	-
Ava II	G`GWC,C	2	Avr II	C`CTAG,C	-
BamH I	G`GATC,C	-	Ban I	G`GYRC,C	3
Ban II	G,RGCY`C	1	Bbe I	G,GGCC`C	1
Bbs I	GAAGAC 8/12	1	Bbv I	GGCAG 13/17	9
Bbv II	GAAGAC 7/11	1	Bcl I	T`GATC,A	-
Bcn I	CC,S`GG	7	Bfa I	C`TA,G	2
Bgl I	GCCN,NNN`NGGC	-	Bgl II	A`GATC,T	-
Blp I	GC`TNA,GC	-	Bpm I	CTGGAG 22/20	2
Bsa I	GGTCTC 7/11	-	BsaA I	YAC GTR	3
BsaB I	GATNN NNATC	1	BsaH I	GR`CG,YC	1
BsaJ I	C`CNNG,G	4	BsaW I	W`CCGG,W	3
BseR I	GAGGAG 16/14	-	Bsg I	GTGCAG 22/20	-
BsiC I	TT`CG,AA	1	BsiE I	CG,RY`CG	3
BsiHKA I	G,WGCW`C	4	BsiW I	C`GTAC,G	-
Bsm I	GAATG,C 7	1	BsmA I	GTCTC`/9	2
BsmB I	CGTCTC 7/11	1	BsmF I	GGGAC 15/19	2
BsoF I	GC`N,GC	30	Bsp120 I	G`GGCC,C	-
Bsp1286 I	G,DGCH`C	1	BspH I	T`CATG,A	2
BspM I	ACCTGC 10/14	2	BspM II	T`CCGG,A	-
Bsr I	ACT,GG`	10	BsrB I	GAG CGG	3
BsrD I	GCAATG, 8	1	BsrG I	T`GTAC,A	-
BssH II	G`CGCG,C	-	BssS I	C`TCGT,G	2
Bst1107 I	GTA TAC	1	BstB I	TT`CG,AA	1
BstE II	G`GTNAC,C	1	BstN I	CC`W,GG	4
BstU I	CG CG	8	BstX I	CCAN,NNNN`NTGG	-
BstY I	R`GATC,Y	7	Bsu36 I	CC`TNA,GG	-
Cac8 I	GCN NGC	18	Cfr10 I	R`CCGG,Y	2
Cla I	AT`CG,AT	-	Csp6 I	G`TA,C	4
Dde I	C`TNA,G	5	Dpn I	GA TC	13
DpnII	`GATC,	13	Dra I	TTT AAA	4
Dra III	CAC,NNN`GTG	1	Drd I	GACNN,NN`NNGTC	3
Dsa I	C`CRYG,G	2	Eae I	Y`GGCC,R	5
Eag I	C`GGCC,G	1	Ear I	CTCTTC 7/10	4
Eco47 III	AGC GCT	1	Eco57 I	CTGAAG 21/19	3
Eco72 I	CAC GTG	-	EcoN I	CCTNN`N,NNAGG	-
EcoO109 I	RG`GNC,CY	1	EcoR I	G`AATT,C	1

EcoR II	`CCWGG,	4	EcoR V	GAT ATC	-	NspH I	R,CATG`Y	4	Pac I	TTA,AT`TAA	-
Ehe I	GGC GCC	1	Esp I	GC`TNA,GC	-	PaeR7 I	C`TCGA,G	-	Pal I	GG CC	11
Fnu4H I	GC`N,GC	30	Fok I	GGATG 14/18	8	PflM I	CCAN,NNN`NTGG	1	Ple I	GAGTC 9/10	2
Fse I	GG,CCGG`CC	-	Fsp I	TGC GCA	1	Pme I	CTTT AAAC	-	Pml I	CAC GTG	-
Gdi II	`YGGC,CG	5	Gsu I	CTGGAG 21/19	2	PpuM I	RG`GWC,CY	-	Psp1406 I	AA`CG,TT	1
Hae I	WGG CCW	4	Hae II	R,GCGC`Y	4	PspA I	C`CCGG,G	-	Pst I	C,TGCA`G	-
Hae III	GG CC	11	Hga I	GACGC 9/14	4	Pvu I	CG,AT`CG	-	Pvu II	CAG CTG	2
HgiA I	G,WGCW`C	4	HgiE II	ACCNNNNNNGGT -1/132	-	Rsa I	GT AC	4	Rsr II	CG`GWC,CG	1
Hha I	G,CG`C	17	HinC II	GTY RAC	-	Sac I	G,AGCT`C	-	Sac II	CC,GC`GG	-
Hind II	GTY RAC	-	HinD III	A`AGCT,T	1	Sal I	G`TCGA,C	-	Sap I	GCTCTTC 8/11	3
Hinf I	G`ANT,C	9	HinI I	GR`CG,YC	1	Sau3A I	`GATC,	13	Sau96 I	G`GNC,C	4
HinP I	G`CG,C	17	Hpa I	GTT AAC	-	Sca I	AGT ACT	-	ScrF I	CC`N,GG	11
Hpa II	C`CG,G	16	Hph I	GGTGA 12/11	5	Sec I	C`CNGG,G	4	SfaN I	GCATC 9/13	16
Kas I	G`GCGC,C	1	Kpn I	G,GTAC`C	-	Sfc I	C`TRYA,G	3	Sfi I	GGCCN,NNN`NGGCC	-
Mae I	C`TA,G	2	Mae II	A`CG,T	8	Sma I	CCC GGG	-	SnaB I	TAC GTA	-
Mae III	`GTNAC,	14	Mbo I	`GATC,	13	Spe I	A`CTAG,T	-	Sph I	G,CATG`C	1
Mbo II	GAAGA 12/11	8	Mlu I	A`CGCG,T	-	SpI I	C`GTAC,G	-	Srf I	GGCC GGGC	-
Mme I	TCRCRAC 25/23	2	Mnl I	CCTC 10/10	17	Ssp I	AAT ATT	-	Stu I	AGG CCT	-
Msc I	TGG CCA	1	Mse I	T`TA,A	14	Sty I	C`CWWG,G	2	Swa I	ATTT AAAT	-
Msl I	CAYNN NNRTG	1	Msp I	C`CG,G	16	Taq I	T`CG,A	9	Tfi I	G`AWT,C	5
MspA1 I	CMG CKG	5	Mun I	C`AATT,G	-	Tsp45 I	`GTSAC,	7	Tth111 I	GACN`N,NGTC	3
Nae I	GCC GGC	1	Nar I	GG`CG,CC	1	Tth111 II	CAARCA 16/14	5	Vsp I	AT`TA,AT	1
Nci I	CC`S,GG	7	Nco I	C`CATG,G	2	Xba I	T`CTAG,A	-	Xca I	GTA TAC	1
Nde I	CA`TA,TG	2	NgoM I	G`CCGG,C	1	Xcm I	CCANNNN,N`NNNTGG-	-	Xho I	C`TCGA,G	-
Nhe I	G`CTAG,C	-	Nla III	,CATG`	16	Xho II	R`GATC,Y	7	Xma I	C`CCGG,G	-
Nla IV	GGN NCC	7	Not I	GC`GGCC,GC	-	Xma III	C`GGCC,G	1	Xmn I	GAANN NN TTC	2
Nru I	TCG CGA	-	Nsi I	A,TGCA`T	-						
Nsp7524 I	R`CATG,Y	4	NspB II	CMG CKG	5						