

## pHcRed-Tandem-YB vector

### Table of restriction sites

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AanI	TTA!TAA	3	49; 518; 1214
AarI	CACCTGCNNNN!	0	
AarI	!NNNNNNNNNGCAGGTG	0	
AasI	GACNNNN!NNGTC	2	2640; 3053
AatI	AGG!CCT	0	
AatII	GACGT!C	1	4760
AbsI	CC!TCGAGG	0	
AccI	GT!MKAC	1	2717
AccII	CG!CG	9	1551; 2546; 2548; 2651; 2992; 3573; 3903; 4396; 4728
AccIII	T!CCGGA	1	1923
Acc16I	TGC!GCA	1	4060
Acc36I	ACCTGCNNNN!	0	
Acc36I	!NNNNNNNNNGCAGGT	0	
Acc65I	G!GTACC	3	145; 535; 1231
AccB1I	G!GYRCC	5	145; 535; 1231; 2393; 3786
AccB7I	CCANNNN!NTGG	5	274; 619; 970; 1315; 2159
AccBSI	CCG!CTC	1	2530
AccBSI	GAG!CGG	4	36; 68; 2878; 4679
AceIII	CAGCTCNNNNNNN!	3	2597; 2897; 4137
AceIII	!NNNNNNNNNNNGAGCTG	3	146; 1942; 2524
Acil	C!CGC	23	131; 1549; 1643; 1905; 2269; 2525; 2528; 2785; 2811; 2828; 2990; 3018; 3145; 3164; 3285; 3530; 3901; 3992; 4229; 4394; 4471; 4580; 4726
Acil	G!CGG	18	36; 68; 1551; 2363; 2618; 2657; 2667; 2709; 2734; 2772; 2871; 2878; 2899; 3395; 3539; 4183; 4350; 4679
AclI	AA!CGTT	3	2014; 4064; 4437
AclWI	GGATCNNNN!	4	129; 3594; 3691; 4471
AclWI	!NNNNNGATCC	9	122; 695; 1391; 1584; 3506; 3592; 3690; 4154; 4475
AcoI	Y!GGCCR	2	2192; 4226
AcsI	R!AATY	6	17; 293; 392; 989; 1088; 1927
AcuI	CTGAAGNNNNNNNNNNNNNNNN!	5	326; 620; 1022; 1316; 3493
AcuI	!NNNNNNNNNNNNNNNCTCAG	1	4505
AcvI	CAC!GTG	0	
AcyI	GR!CGYC	2	4375; 4757
AdeI	CACNNN!GTG	0	
AfaI	GT!AC	11	147; 219; 279; 537; 915; 975; 1233; 1806; 2344; 2753; 4318
AfeI	AGC!GCT	0	
AfiI	CCNNNNN!NNGG	12	274; 553; 619; 970; 1249; 1315; 2159; 2596; 2967; 2985; 3151; 3430
AfiII	C!TTAAG	0	
AfiIII	A!CRYGT	1	2945
AgeI	A!CCGGT	0	
AgsI	TTS!AA	12	59; 183; 654; 796; 879; 1350; 1492; 3414; 4616; 4639; 4649; 4693
AhdI	GACNNN!NNGTC	1	3838
AhI	A!CTAGT	0	
AjiI	CAC!GTC	0	
AjiI	GAC!GTG	0	
Ajnl	!CCWGG	9	732; 855; 1428; 2102; 2158; 2406; 2971; 3092; 3105
AjuI	GAANNNNNNNTTGGNNNNNNNNNN!	0	
AjuI	!NNNNNNCCAANNNNNNNTTC	0	
AjuI	CCAANNNNNNNTTCNNNNNNNNNNNN!	0	
AjuI	!NNNNNNNGAANNNNNNNTTGG	0	
AleI	CACNN!NNGTG	0	
AlfI	GCANNNNNTGCNNNNNNNNNNNN!	0	
AlfI	!NNNNNNNNNGCANNNNNTGC	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AloI	GAACNNNNNTCCNNNNNNNNNNNN!	0	
AloI	!NNNNNNNGGANNNNNNGTTC	0	
AloI	GGANNNNNGTTCNNNNNNNNNNNN!	0	
AloI	!NNNNNNNGAACNNNNNNNTCC	0	
AluI	AG!CT	29	141; 160; 712; 721; 844; 1408; 1417; 1540; 1557; 1566; 1571; 1675; 1679; 1699; 1708; 1827; 1956; 2427; 2538; 2587; 2606; 2887; 3113; 3249; 3506; 3826; 4027; 4127; 4190
AluBI	AG!CT	29	141; 160; 712; 721; 844; 1408; 1417; 1540; 1557; 1566; 1571; 1675; 1679; 1699; 1708; 1827; 1956; 2427; 2538; 2587; 2606; 2887; 3113; 3249; 3506; 3826; 4027; 4127; 4190
AlwI	GGATCNNNN!	4	129; 3594; 3691; 4471
AlwI	!NNNNNGATCC	9	122; 695; 1391; 1584; 3506; 3592; 3690; 4154; 4475
Alw21I	GWGCW!C	7	143; 315; 1011; 2765; 3263; 4424; 4509
Alw26I	GTCTCN!	2	2151; 4675
Alw26I	!NNNNNGAGAC	2	2588; 3899
Alw44I	G!TGCAC	3	2761; 3259; 4505
AlwNI	CAGNNN!CTG	1	3361
Ama87I	C!YCGRG	2	1; 150
Aor13HI	T!CCGGA	1	1923
Aor51HI	AGC!GCT	0	
ApaI	GGCC!C	0	
ApaBI	GCANNNNN!TGC	3	815; 1511; 2770
ApaLI	G!TGCAC	3	2761; 3259; 4505
ApeKI	G!CWGC	13	160; 2538; 2584; 2681; 2850; 2868; 3287; 3352; 3355; 3561; 3826; 3889; 4255
ApoI	R!AATTY	6	17; 293; 392; 989; 1088; 1927
ApyPI	ATCGACNNNNNNNNNNNNNNNNNN!	1	3069
ApyPI	!NNNNNNNNNNNNNNNNNGTCGAT	0	
AquII	GCCGNACNNNNNNNNNNNNNNNNNN!	0	
AquII	!NNNNNNNNNNNNNNNNNGTNCGGC	0	
AquIII	GAGGAGNNNNNNNNNNNNNNNNNN!	1	125
AquIII	!NNNNNNNNNNNNNNNNNNCTCCTC	0	
AquIV	GRGGAAGNNNNNNNNNNNNNNNNNN!	0	
AquIV	!NNNNNNNNNNNNNNNNNNCTCCYC	1	2813
ArsI	GACNNNNNTTYGNNNNNNNNNN!	3	691; 1387; 2226
ArsI	!NNNNNCCRAANNNNNGTC	0	
ArsI	CRAANNNNNGTCNNNNNNNNNNNN!	0	
ArsI	!NNNNNNNGACNNNNNTTYG	3	659; 1355; 2194
AscI	GG!CGCGCC	0	
AseI	AT!TAAT	1	4010
Asi256I	G!ATC	19	122; 128; 701; 851; 1397; 1590; 3512; 3587; 3598; 3606; 3684; 3696; 3801; 4142; 4160; 4206; 4464; 4481; 4517
AsiGI	A!CCGGT	0	
AsiSI	GCGAT!CGC	0	
AspI	GACN!NNGTC	1	2692
Asp700I	GAANN!NNTTC	1	4437
Asp718I	G!GTACC	3	145; 535; 1231
AspA2I	C!CTAGG	0	
AspEI	GACNNN!NNGTC	1	3838
AspLEI	GCG!C	14	2548; 2651; 2681; 2822; 2855; 3125; 3192; 3292; 3466; 3575; 3968; 4061; 4398; 4730
AspS9I	G!GNCC	8	556; 1252; 2469; 3880; 3959; 3976; 4198; 4814
AssI	AGT!ACT	2	2344; 4318
AsuII	TT!CGAA	0	
AsuC2I	CC!SGG	8	151; 152; 1647; 2591; 2626; 3325; 4021; 4372
AsuHPI	GGTGANNNNNNNN!	12	262; 673; 958; 1369; 1674; 1963; 2107; 2175; 2509; 2567; 4324; 4565
AsuHPI	!NNNNNNNTCACC	7	1969; 2163; 2217; 3681; 3908; 4530; 4819
AsuNHI	G!CTAGC	1	1675
AvaI	C!YCGRG	2	1; 150
AvaII	G!GWCC	4	556; 1252; 3976; 4198
AviII	TGC!GCA	1	4060
AvrII	C!CTAGG	0	
AxyI	CC!TNAGG	0	
BaeI	ACNNNNGTAYCNNNNNNNNNNNN!	0	
BaeI	!NNNNNNNGRTACNNNNNGT	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BaeI	GRTACNNNGTNNNNNNNNNNNNNNNN!	0	
BaeI	!NNNNNNNNNNACNNNNNGTAYC	0	
BaeGI	GKGC!C	4	2398; 2765; 3263; 4509
BalI	TGG!CCA	1	2194
BamHI	G!GATCC	1	127
BanI	G!GYRCC	5	145; 535; 1231; 2393; 3786
BanII	GRGCY!C	1	143
BanIII	AT!CGAT	0	
BarI	GAAGNNNNNTACNNNNNNNNNNNN!	0	
BarI	!NNNNNNNGTANNNNNNCTTC	0	
BarI	GTANNNNNNCTTCNNNNNNNNNNNN!	0	
BarI	!NNNNNNNGAAGNNNNNNNTAC	0	
BasI	CCANNNN!NTGG	5	274; 619; 970; 1315; 2159
BauI	C!ACGAG	1	4809
BauI	C!TCGTG	2	3118; 4502
BbeI	GGCGC!C	0	
Bbr7I	GAAGACNNNNNNN!	0	
Bbr7I	!NNNNNNNNNNNGTCTTC	1	4811
BbrPI	CAC!GTG	0	
BbsI	GAAGACNN!	0	
BbsI	!NNNNNNNGTCTTC	1	4816
BbuI	GCATG!C	1	137
BbvI	GCAGCNNNNNNN!	5	2596; 2693; 3364; 3573; 4267
BbvI	!NNNNNNNNNNNGCTGC	7	147; 2525; 2837; 2855; 3274; 3813; 3876
Bbv12I	GWGCW!C	7	143; 315; 1011; 2765; 3263; 4424; 4509
BbvCI	CC!TCAGC	0	
BbvCI	GC!TGAGG	0	
BccI	CCATCNNNN!	6	600; 1296; 1621; 3882; 4006; 4293
BccI	!NNNNNGATGG	8	159; 253; 454; 547; 949; 1150; 1243; 2296
BceAI	ACGGCNNNNNNNNNNNN!	2	1853; 3447
BceAI	!NNNNNNNNNNNNNGCCGT	1	2278
Bcefl	ACGGCNNNNNNNNNNNN!	2	1853; 3447
Bcefl	!NNNNNNNNNNNNNGCCGT	1	2279
BcgI	CGANNNNNNTGCNNNNNNNNNNNN!	1	4377
BcgI	!NNNNNNNNNNNGCANNNNNNNTCG	0	
BcgI	GCANNNNNNTCGNNNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNNCGANNNNNNNTGC	1	4343
BciVI	GTATCCNNNNNN!	0	
BciVI	!NNNNNGGATAC	2	3148; 4675
BclI	T!GATCA	0	
BcnI	CC!SGG	8	151; 152; 1647; 2591; 2626; 3325; 4021; 4372
BcuI	A!CTAGT	0	
BdaI	TGANNNNNNTCANNNNNNNNNNNN!	2	1802; 3050
BdaI	!NNNNNNNNNNTGANNNNNNNTCA	2	1768; 3016
BfaI	C!TAG	10	365; 818; 1061; 1514; 1676; 2424; 2533; 3440; 3693; 4028
BfiI	ACTGGGNNNNN!	1	2476
BfiI	!NNNNCCCAGT	2	2686; 3878
BfmI	C!TRYAG	3	3210; 3401; 4079
BfoI	RGCGC!Y	2	2823; 3193
BfrI	C!TTAAG	0	
BfuI	GTATCCNNNNNN!	0	
BfuI	!NNNNNGGATAC	2	3148; 4675
BfuAI	ACCTGCNNNN!	0	
BfuAI	!NNNNNNNNNGCAGGT	0	
BfuCI	!GATC	19	121; 127; 700; 850; 1396; 1589; 3511; 3586; 3597; 3605; 3683; 3695; 3800; 4141; 4159; 4205; 4463; 4480; 4516
BglI	GCCNNNN!NGGC	1	3958
BglII	A!GATCT	1	850
BisI	GC!NGC	23	161; 1643; 2269; 2528; 2539; 2585; 2682; 2735; 2851; 2869; 2872; 2990; 3145; 3288; 3353; 3356; 3562; 3827; 3890; 4229; 4256; 4351; 4580
BlnI	C!CTAGG	0	
BlpI	GC!TNAGC	1	1567

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BlsI	GCN!GC	23	162; 1644; 2270; 2529; 2540; 2586; 2683; 2736; 2852; 2870; 2873; 2991; 3146; 3289; 3354; 3357; 3563; 3828; 3891; 4230; 4257; 4352; 4581
BmcAI	AGT!ACT	2	2344; 4318
Bme18I	G!GWCC	4	556; 1252; 3976; 4198
Bme1390I	CC!NGG	17	151; 152; 734; 857; 1430; 1647; 2104; 2160; 2408; 2591; 2626; 2973; 3094; 3107; 3325; 4021; 4372
BmeRI	GACNNN!NNGTC	1	3838
BmeT110I	C!YCGRG	2	1; 150
BmgBI	CAC!GTC	0	
BmgBI	GAC!GTG	0	
BmgT120I	GG!NCC	8	557; 1253; 2470; 3881; 3960; 3977; 4199; 4815
BmiI	GGN!NCC	16	129; 147; 344; 537; 590; 1040; 1233; 1286; 2395; 2977; 3016; 3788; 3882; 3923; 4134; 4724
BmrI	ACTGGGNNNNN!	1	2476
BmrI	!NNNNCCCAGT	2	2686; 3878
BmrFI	CC!NGG	17	151; 152; 734; 857; 1430; 1647; 2104; 2160; 2408; 2591; 2626; 2973; 3094; 3107; 3325; 4021; 4372
BmsI	GCATCNNNNN!	9	817; 1513; 1770; 2443; 2746; 2822; 3042; 4094; 4534
BmsI	!NNNNNNNNNGATGC	4	2255; 2611; 2782; 4285
BmtI	GCTAG!C	1	1679
BmuI	ACTGGGNNNNN!	1	2476
BmuI	!NNNNCCCAGT	2	2686; 3878
BoxI	GACNN!NNGTC	0	
BpiI	GAAGACNN!	0	
BpiI	!NNNNNNGTCTTC	1	4816
BpI	GAGNNNNNCTCNNNNNNNNNNNN!	0	
BpI	!NNNNNNNGAGNNNNNCTC	0	
BpmI	CTGGAGNNNNNNNNNNNNNNNN!	1	2049
BpmI	!NNNNNNNNNNNNNNNCTCCAG	2	839; 3908
Bpu10I	CC!TNAGC	0	
Bpu10I	GC!TNAGG	1	1700
Bpu14I	TT!CGAA	0	
Bpu1102I	GC!TNAGC	1	1567
BpuAI	GAAGACNN!	0	
BpuAI	!NNNNNNGTCTTC	1	4816
BpuEI	CTTGAGNNNNNNNNNNNNNNNN!	2	2449; 3334
BpuEI	!NNNNNNNNNNNNNNNCTCAAG	3	3036; 3575; 4443
BpuMI	CC!SGG	8	151; 152; 1647; 2591; 2626; 3325; 4021; 4372
BpvUI	CGAT!CG	1	4208
BsaI	GGTCTCN!	0	
BsaI	!NNNNNGAGACC	1	3899
Bsa29I	AT!CGAT	0	
BsaAI	YAC!GTR	1	2699
BsaBI	GATNN!NNATC	3	126; 263; 959
BsaHI	GR!CGYC	2	4375; 4757
BsaJI	C!CNNGG	7	149; 1549; 2158; 2159; 2228; 2407; 3105
BsaMI	GAATGCN!	2	1920; 2327
BsaMI	G!CATTC	0	
BsaWI	W!CCGGW	4	1923; 3151; 3298; 4129
BsaXI	ACNNNNNCTCCNNNNNNNNNN!	0	
BsaXI	!NNNNNNNGGAGNNNNNGT	0	
BsaXI	GGAGNNNNNGTNNNNNNNNNN!	0	
BsaXI	!NNNNNNNNNACNNNNNCTCC	0	
BsbI	CAACACNNNNNNNNNNNNNNNNNN!	0	
BsbI	!NNNNNNNNNNNNNNNNNNGTGTG	1	2641
Bsc4I	CCNNNNN!NNGG	12	274; 553; 619; 970; 1249; 1315; 2159; 2596; 2967; 2985; 3151; 3430
BscAI	GCATCNNNN!	9	816; 1512; 1769; 2442; 2745; 2821; 3041; 4093; 4533
BscAI	!NNNNNNNGATGC	4	2258; 2614; 2785; 4288
Bse1I	ACTGGN!	6	1734; 2471; 2725; 3353; 3366; 4314
Bse1I	C!CAGT	10	559; 1255; 1593; 2174; 2692; 3478; 3884; 4002; 4045; 4484
Bse8I	GATNN!NNATC	3	126; 263; 959
Bse21I	CC!TNAGG	0	
Bse118I	R!CCGGY	1	3918

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BseAI	T!CCGGA	1	1923
BseBI	CC!WGG	9	734; 857; 1430; 2104; 2160; 2408; 2973; 3094; 3107
BseCI	AT!CGAT	0	
BseDI	C!CNNGG	7	149; 1549; 2158; 2159; 2228; 2407; 3105
Bse3DI	GCAATGNN!	2	1946; 3899
Bse3DI	!CATTGC	3	316; 1012; 4073
BseGI	GGATGNN!	1	2626
BseGI	!CATCC	4	1920; 3817; 3998; 4285
BseJI	GATNN!NNATC	3	126; 263; 959
BseLI	CCNNNNN!NNGG	12	274; 553; 619; 970; 1249; 1315; 2159; 2596; 2967; 2985; 3151; 3430
BseMI	GCAATGNN!	2	1946; 3899
BseMI	!CATTGC	3	316; 1012; 4073
BseMII	CTCAGNNNNNNNNNN!	6	1618; 2162; 2468; 3234; 3643; 3809
BseMII	!NNNNNNNNCTGAG	4	1558; 2501; 2746; 4326
BseNI	ACTGGN!	6	1734; 2471; 2725; 3353; 3366; 4314
BseNI	C!CAGT	10	559; 1255; 1593; 2174; 2692; 3478; 3884; 4002; 4045; 4484
BsePI	G!CGCGC	0	
BseRI	GAGGAGNNNNNNNNNN!	1	115
BseRI	!NNNNNNNNCTCCTC	0	
BseSI	GKGC!C	4	2398; 2765; 3263; 4509
BseXI	GCAGC!NNNNNNNN!	5	2596; 2693; 3364; 3573; 4267
BseXI	!NNNNNNNNNNNGCTGC	7	147; 2525; 2837; 2855; 3274; 3813; 3876
BseX3I	C!GGCCG	0	
BseYI	C!CCAGC	0	
BseYI	G!CTGGG	1	3249
BsgI	GTGCAGNNNNNNNNNNNNNN!	0	
BsgI	!NNNNNNNNNNNNNNCTGCAC	0	
Bsh1236I	CG!CG	9	1551; 2546; 2548; 2651; 2992; 3573; 3903; 4396; 4728
Bsh1285I	CGRY!CG	3	3285; 4208; 4357
BshFI	GG!CC	13	1840; 1885; 2107; 2194; 2471; 2960; 2971; 2989; 3423; 3881; 3961; 4228; 4815
BshNI	G!GYRCC	5	145; 535; 1231; 2393; 3786
BshTI	A!CCGGT	0	
BshVI	AT!CGAT	0	
BsiEI	CGRY!CG	3	3285; 4208; 4357
BsiHKAI	GWGCW!C	7	143; 315; 1011; 2765; 3263; 4424; 4509
BsiHKCI	C!YCGRG	2	1; 150
BsiSI	C!CGG	16	151; 1646; 1882; 1924; 2052; 2591; 2625; 3152; 3299; 3325; 3515; 3919; 3953; 4020; 4130; 4372
BsiWI	C!GTACG	0	
BsII	CCNNNNN!NNGG	12	274; 553; 619; 970; 1249; 1315; 2159; 2596; 2967; 2985; 3151; 3430
BsIFI	GGGACNNNNNNNNNN!	0	
BsIFI	!NNNNNNNNNNNNNGTCCC	0	
BsmI	GAATGCN!	2	1920; 2327
BsmI	G!CATTC	0	
BsmAI	GTCTCN!	2	2151; 4675
BsmAI	!NNNNNGAGAC	2	2588; 3899
BsmBI	CGTCTCN!	1	2151
BsmBI	!NNNNNGAGACG	1	2588
BsmFI	GGGACNNNNNNNNNN!	0	
BsmFI	!NNNNNNNNNNNNNGTCCC	0	
BsnI	GG!CC	13	1840; 1885; 2107; 2194; 2471; 2960; 2971; 2989; 3423; 3881; 3961; 4228; 4815
Bso31I	GGTCTCN!	0	
Bso31I	!NNNNNGAGACC	1	3899
BsoBI	C!YCGRG	2	1; 150
Bsp13I	T!CCGGA	1	1923
Bsp19I	C!CATGG	1	2228
Bsp24I	GACNNNNNTGGNNNNNNNNNN!	2	3470; 3648
Bsp24I	!NNNNNNCCANNNNNGTC	1	4742
Bsp24I	CCANNNNNGTCNNNNNNNNNN!	1	4774
Bsp24I	!NNNNNNNGACNNNNNTGG	2	3438; 3616
Bsp68I	TCG!CGA	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Bsp119I	TT!CGAA	0	
Bsp120I	G!GGCCC	0	
Bsp143I	!GATC	19	121; 127; 700; 850; 1396; 1589; 3511; 3586; 3597; 3605; 3683; 3695; 3800; 4141; 4159; 4205; 4463; 4480; 4516
Bsp1286I	GDGCH!C	8	143; 315; 1011; 2398; 2765; 3263; 4424; 4509
Bsp1407I	T!GTACA	0	
Bsp1720I	GC!TNAGC	1	1567
BspACI	C!CGC	23	131; 1549; 1643; 1905; 2269; 2525; 2528; 2785; 2811; 2828; 2990; 3018; 3145; 3164; 3285; 3530; 3901; 3992; 4229; 4394; 4471; 4580; 4726
BspACI	G!CGG	18	36; 68; 1551; 2363; 2618; 2657; 2667; 2709; 2734; 2772; 2871; 2878; 2899; 3395; 3539; 4183; 4350; 4679
BspCNI	CTCAGNNNNNNNN!	6	1617; 2161; 2467; 3233; 3642; 3808
BspCNI	!NNNNNNNCTGAG	4	1559; 2502; 2747; 4327
BspDI	AT!CGAT	0	
BspD6I	GA CTCNNNN!	4	1584; 2426; 2853; 3841
BspD6I	!NNNNNNGAGTC	1	3309
BspEI	T!CCGGA	1	1923
BspFNI	CG!CG	9	1551; 2546; 2548; 2651; 2992; 3573; 3903; 4396; 4728
BspHI	T!CATGA	3	3665; 4673; 4778
BspLI	GGN!NCC	16	129; 147; 344; 537; 590; 1040; 1233; 1286; 2395; 2977; 3016; 3788; 3882; 3923; 4134; 4724
BspMI	ACCTGCNNNN!	0	
BspMI	!NNNNNNNNGCAGGT	0	
BspOI	GCTAG!C	1	1679
BspPI	GGATCNNNN!	4	129; 3594; 3691; 4471
BspPI	!NNNNNGATCC	9	122; 695; 1391; 1584; 3506; 3592; 3690; 4154; 4475
BspQI	GCTCTCN!	1	2829
BspQI	!NNNNGAAGAGC	0	
BspTI	C!TTAAG	0	
BspT104I	TT!CGAA	0	
BspT107I	G!GYRCC	5	145; 535; 1231; 2393; 3786
BspTNI	GGTCTCN!	0	
BspTNI	!NNNNNGAGACC	1	3899
BsrI	ACTGGN!	6	1734; 2471; 2725; 3353; 3366; 4314
BsrI	C!CAGT	10	559; 1255; 1593; 2174; 2692; 3478; 3884; 4002; 4045; 4484
BsrBI	CCG!CTC	1	2530
BsrBI	GAG!CGG	4	36; 68; 2878; 4679
BsrDI	GCAATGNN!	2	1946; 3899
BsrDI	!CATTGC	3	316; 1012; 4073
BsrFI	R!CCGGY	1	3918
BsrGI	T!GTACA	0	
BsrSI	ACTGGN!	6	1734; 2471; 2725; 3353; 3366; 4314
BsrSI	C!CAGT	10	559; 1255; 1593; 2174; 2692; 3478; 3884; 4002; 4045; 4484
BssAI	R!CCGGY	1	3918
BssECI	C!CNNGG	7	149; 1549; 2158; 2159; 2228; 2407; 3105
BssHII	G!CGCGC	0	
BssKI	!CCNGG	17	149; 150; 732; 855; 1428; 1645; 2102; 2158; 2406; 2589; 2624; 2971; 3092; 3105; 3323; 4019; 4370
BssMI	!GATC	19	121; 127; 700; 850; 1396; 1589; 3511; 3586; 3597; 3605; 3683; 3695; 3800; 4141; 4159; 4205; 4463; 4480; 4516
BssNI	GR!CGYC	2	4375; 4757
BssNAI	GTA!TAC	1	2718
BssSI	C!ACGAG	1	4809
BssSI	C!TCGTG	2	3118; 4502
BssT1I	C!CWWGG	1	2228
Bst6I	CTCTCN!	2	2829; 4633
Bst6I	!NNNNGAAGAG	0	
Bst98I	C!TTAAG	0	
Bst1107I	GTA!TAC	1	2718
BstACI	GR!CGYC	2	4375; 4757
BstAFI	C!TTAAG	0	
BstAPI	GCANNNN!NTGC	3	814; 1510; 2769
BstAUI	T!GTACA	0	
BstBI	TT!CGAA	0	
Bst2BI	C!ACGAG	1	4809

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Bst2BI	C!TCGTG	2	3118; 4502
BstBAI	YAC!GTR	1	2699
Bst4CI	ACN!GT	16	222; 918; 1743; 1821; 1854; 1951; 1992; 2095; 2342; 2564; 2599; 2909; 2980; 3450; 3763; 4278
BstC8I	GCN!NGC	10	135; 139; 1677; 1905; 2273; 2876; 2962; 2999; 3559; 3950
BstDEI	C!TNAG	12	1567; 1604; 1700; 2148; 2454; 2510; 2755; 3220; 3629; 3795; 4335; 4761
BstDSI	C!CRYGG	2	1549; 2228
BstEII	G!GTNACC	0	
BstENI	CCTNN!NNNAGG	0	
BstF5I	GGATGNN!	1	2626
BstF5I	!CATCC	4	1920; 3817; 3998; 4285
BstFNI	CG!CG	9	1551; 2546; 2548; 2651; 2992; 3573; 3903; 4396; 4728
BstH2I	RGCGC!Y	2	2823; 3193
BstHHI	GCG!C	14	2548; 2651; 2681; 2822; 2855; 3125; 3192; 3292; 3466; 3575; 3968; 4061; 4398; 4730
BstKTI	GAT!C	19	124; 130; 703; 853; 1399; 1592; 3514; 3589; 3600; 3608; 3686; 3698; 3803; 4144; 4162; 4208; 4466; 4483; 4519
BstMAI	GTCTCN!	2	2151; 4675
BstMAI	!NNNNNGAGAC	2	2588; 3899
BstMBI	!GATC	19	121; 127; 700; 850; 1396; 1589; 3511; 3586; 3597; 3605; 3683; 3695; 3800; 4141; 4159; 4205; 4463; 4480; 4516
BstMCI	CGRY!CG	3	3285; 4208; 4357
BstMWI	GCNNNNN!NNGC	15	33; 718; 814; 1414; 1510; 1563; 1681; 1705; 2268; 2769; 2819; 2884; 2998; 3570; 3958
BstNI	CC!WGG	9	734; 857; 1430; 2104; 2160; 2408; 2973; 3094; 3107
BstNSI	RCATG!Y	3	137; 2584; 2949
BstOI	CC!WGG	9	734; 857; 1430; 2104; 2160; 2408; 2973; 3094; 3107
BstPI	G!GTNACC	0	
BstPAI	GACNN!NNGTC	0	
BstSCI	!CCNGG	17	149; 150; 732; 855; 1428; 1645; 2102; 2158; 2406; 2589; 2624; 2971; 3092; 3105; 3323; 4019; 4370
BstSFI	C!TRYAG	3	3210; 3401; 4079
BstSLI	GKGC!C	4	2398; 2765; 3263; 4509
BstSNI	TAC!GTA	0	
BstUI	CG!CG	9	1551; 2546; 2548; 2651; 2992; 3573; 3903; 4396; 4728
Bst2UI	CC!WGG	9	734; 857; 1430; 2104; 2160; 2408; 2973; 3094; 3107
BstV1I	GCAGCNNNNNNN!	5	2596; 2693; 3364; 3573; 4267
BstV1I	!NNNNNNNNNNNGCTGC	7	147; 2525; 2837; 2855; 3274; 3813; 3876
BstV2I	GAAGACNN!	0	
BstV2I	!NNNNNNGTCTTC	1	4816
BstXI	CCANNNN!NTGG	0	
BstX2I	R!GATCY	11	127; 700; 850; 1396; 1589; 3586; 3597; 3683; 3695; 4463; 4480
BstYI	R!GATCY	11	127; 700; 850; 1396; 1589; 3586; 3597; 3683; 3695; 4463; 4480
BstZI	C!GGCCG	0	
BstZ17I	GTA!TAC	1	2718
BsuI	GTATCCNNNNN!	0	
BsuI	!NNNNNGGATAC	2	3148; 4675
Bsu15I	AT!CGAT	0	
Bsu36I	CC!TNAGG	0	
BsuRI	GG!CC	13	1840; 1885; 2107; 2194; 2471; 2960; 2971; 2989; 3423; 3881; 3961; 4228; 4815
BsuTUI	AT!CGAT	0	
BtgI	C!CRYGG	2	1549; 2228
BtgZI	GCGATGNNNNNNNNN!	2	178; 2363
BtgZI	!NNNNNNNNNNNNNNCATCGC	1	2006
BthCI	GCNG!C	23	163; 1645; 2271; 2530; 2541; 2587; 2684; 2737; 2853; 2871; 2874; 2992; 3147; 3290; 3355; 3358; 3564; 3829; 3892; 4231; 4258; 4353; 4582
BtrI	CAC!GTC	0	
BtrI	GAC!GTG	0	
BtsI	GCAGTGNN!	1	4238
BtsI	!CACTGC	1	4258
BtsCI	GGATGNN!	1	2626
BtsCI	!CATCC	4	1920; 3817; 3998; 4285
BtuMI	TCG!CGA	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BveI	ACCTGCNNNN!	0	
BveI	!NNNNNNNNNGCAGGT	0	
Cac8I	GCN!NGC	10	135; 139; 1677; 1905; 2273; 2876; 2962; 2999; 3559; 3950
CaiI	CAGNN!CTG	1	3361
CciI	T!CATGA	3	3665; 4673; 4778
CciNI	GC!GGCCGC	0	
CdiI	CATC!G	3	1765; 2024; 4089
CdiI	C!GATG	3	164; 2349; 4490
CdpI	GCGGAGNNNNNNNNNNNNNNNNNNNN!	1	2734
CdpI	!NNNNNNNNNNNNNNNNNNNNCTCCGC	1	2997
CelII	GC!TNAGC	1	1567
CfoI	GCG!C	14	2548; 2651; 2681; 2822; 2855; 3125; 3192; 3292; 3466; 3575; 3968; 4061; 4398; 4730
CfrI	Y!GGCCR	2	2192; 4226
Cfr9I	C!CCGGG	1	150
Cfr10I	R!CCGGY	1	3918
Cfr13I	G!GNCC	8	556; 1252; 2469; 3880; 3959; 3976; 4198; 4814
Cfr42I	CCGC!GG	1	1552
ChaI	GATC!	19	125; 131; 704; 854; 1400; 1593; 3515; 3590; 3601; 3609; 3687; 3699; 3804; 4145; 4163; 4209; 4467; 4484; 4520
CjeI	CCANNNNNNGTNNNNNNNNNNNNNNNN!	5	881; 2791; 2997; 3552; 4775
CjeI	!NNNNNNNNNACNNNNNNNTGG	6	210; 906; 1600; 3438; 3516; 3616
CjeI	ACNNNNNNNTGGNNNNNNNNNNNNNN!	6	244; 940; 1634; 3472; 3550; 3650
CjeI	!NNNNNNNNCCANNNNNNGT	5	847; 2757; 2963; 3518; 4741
CjePI	CCANNNNNNTCNNNNNNNNNNNNNN!	2	3503; 4775
CjePI	!NNNNNNNNGANNNNNNNTGG	7	149; 629; 1325; 3438; 3616; 3736; 4208
CjePI	GANNNNNNNTGGNNNNNNNNNNNNNN!	7	182; 662; 1358; 3471; 3649; 3769; 4241
CjePI	!NNNNNNNNCCANNNNNNNNTC	2	3470; 4742
Clal	AT!CGAT	0	
CpoI	CG!GWCCG	0	
CseI	GACGCNNNNN!	2	3056; 3634
CseI	!NNNNNNNNNNNGCGTC	2	2640; 4364
CsiI	A!CCWGGT	0	
CspI	CG!GWCCG	0	
Csp6I	G!TAC	11	146; 218; 278; 536; 914; 974; 1232; 1805; 2343; 2752; 4317
Csp45I	TT!CGAA	0	
CspAI	A!CCGGT	0	
CspCI	CAANNNNNGTGGNNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNNCCACNNNNNTTG	0	
CspCI	CCACNNNNNTTGNNNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNNNCAANNNNGTGG	0	
CstMI	AAGGAGNNNNNNNNNNNNNNNNNNNN!	1	2824
CstMI	!NNNNNNNNNNNNNNNNNNNNCTCCTT	1	4172
CviAII	C!ATG	21	134; 298; 347; 532; 994; 1043; 1228; 1999; 2229; 2290; 2311; 2581; 2686; 2946; 3666; 4157; 4167; 4245; 4281; 4674; 4779
CviJI	RG!CY	64	141; 160; 343; 649; 712; 721; 844; 1039; 1345; 1408; 1417; 1540; 1557; 1566; 1571; 1675; 1679; 1699; 1708; 1827; 1840; 1885; 1956; 2107; 2152; 2194; 2306; 2427; 2453; 2471; 2538; 2587; 2606; 2639; 2684; 2724; 2868; 2887; 2960; 2971; 2989; 3015; 3113; 3249; 3254; 3279; 3358; 3423; 3434; 3477; 3506; 3826; 3869; 3881; 3922; 3948; 3952; 3961; 4027; 4117; 4127; 4190; 4228; 4815
CviKI-1	RG!CY	64	141; 160; 343; 649; 712; 721; 844; 1039; 1345; 1408; 1417; 1540; 1557; 1566; 1571; 1675; 1679; 1699; 1708; 1827; 1840; 1885; 1956; 2107; 2152; 2194; 2306; 2427; 2453; 2471; 2538; 2587; 2606; 2639; 2684; 2724; 2868; 2887; 2960; 2971; 2989; 3015; 3113; 3249; 3254; 3279; 3358; 3423; 3434; 3477; 3506; 3826; 3869; 3881; 3922; 3948; 3952; 3961; 4027; 4117; 4127; 4190; 4228; 4815
CviQI	G!TAC	11	146; 218; 278; 536; 914; 974; 1232; 1805; 2343; 2752; 4317
DdeI	C!TNAG	12	1567; 1604; 1700; 2148; 2454; 2510; 2755; 3220; 3629; 3795; 4335; 4761
DinI	GGC!GCC	0	
DpnI	GA!TC	19	123; 129; 702; 852; 1398; 1591; 3513; 3588; 3599; 3607; 3685; 3697; 3802; 4143; 4161; 4207; 4465; 4482; 4518
DpnII	!GATC	19	121; 127; 700; 850; 1396; 1589; 3511; 3586; 3597; 3605; 3683; 3695; 3800; 4141; 4159; 4205; 4463; 4480; 4516



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
DraI	TTT!AAA	9	240; 408; 936; 1104; 1847; 2186; 3704; 3723; 4415
DraII	RG!GNCCY	1	4814
DraIII	CACNNN!GTG	0	
DraRI	CAAGNACNNNNNNNNNNNNNNNNNNNNNN!	0	
DraRI	!NNNNNNNNNNNNNNNNNGTNCTTG	1	3389
DrdI	GACNNN!NNGTC	2	2640; 3053
DrdIV	TACGACNNNNNNNNNNNNNNNNNNNN!	0	
DrdIV	!NNNNNNNNNNNNNNNNNGTCGTA	0	
DriI	GACNNN!NNGTC	1	3838
DseDI	GACNNN!NNGTC	2	2640; 3053
EaeI	Y!GGCCR	2	2192; 4226
EagI	C!GGCCG	0	
Eam1104I	CTCTCN!	2	2829; 4633
Eam1104I	!NNNNGAAGAG	0	
Eam1105I	GACNNN!NNGTC	1	3838
EarI	CTCTCN!	2	2829; 4633
EarI	!NNNNGAAGAG	0	
EciI	GGCGGANNNNNNNNNNNN!	0	
EciI	!NNNNNNNNNTCCGCC	4	2514; 3007; 3153; 3981
Ecl136II	GAG!CTC	1	141
EclXI	C!GGCCG	0	
Eco24I	GRGCY!C	1	143
Eco31I	GGTCTCN!	0	
Eco31I	!NNNNGAGACC	1	3899
Eco32I	GAT!ATC	0	
Eco47I	G!GWCC	4	556; 1252; 3976; 4198
Eco47III	AGC!GCT	0	
Eco52I	C!GGCCG	0	
Eco57I	CTGAAGNNNNNNNNNNNNNNNN!	5	326; 620; 1022; 1316; 3493
Eco57I	!NNNNNNNNNNNNNNNCTTCAG	1	4505
Eco72I	CAC!GTG	0	
Eco81I	CC!TNAGG	0	
Eco88I	C!YCGRG	2	1; 150
Eco91I	G!GTNACC	0	
Eco105I	TAC!GTA	0	
Eco130I	C!CWWGG	1	2228
Eco147I	AGG!CCT	0	
EcoHI	!CCSGG	8	149; 150; 1645; 2589; 2624; 3323; 4019; 4370
EcoICRI	GAG!CTC	1	141
Eco57MI	CTGRAGNNNNNNNNNNNNNNNN!	6	326; 620; 1022; 1316; 2049; 3493
Eco57MI	!NNNNNNNNNNNNNNNCTYCAG	3	839; 3908; 4505
EcoNI	CCTNN!NNNAGG	0	
Eco065I	G!GTNACC	0	
Eco0109I	RG!GNCCY	1	4814
EcoRI	G!AATTC	2	293; 989
EcoRII	!CCWGG	9	732; 855; 1428; 2102; 2158; 2406; 2971; 3092; 3105
EcoRV	GAT!ATC	0	
EcoT14I	C!CWWGG	1	2228
EcoT22I	ATGCA!T	0	
EcoT38I	GRGCY!C	1	143
Eco53kI	GAG!CTC	1	141
EgeI	GGC!GCC	0	
EheI	GGC!GCC	0	
ErhI	C!CWWGG	1	2228
EsaBC3I	TC!GA	5	3; 157; 2460; 3046; 4490
Esp3I	CGTCTCN!	1	2151
Esp3I	!NNNNGAGACG	1	2588
FaeI	CATG!	21	137; 301; 350; 535; 997; 1046; 1231; 2002; 2232; 2293; 2314; 2584; 2689; 2949; 3669; 4160; 4170; 4248; 4284; 4677; 4782

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
FaiI	YA!TR	82	12; 49; 115; 135; 193; 209; 211; 289; 299; 348; 359; 383; 455; 518; 533; 565; 646; 689; 698; 730; 803; 862; 889; 905; 907; 985; 995; 1044; 1055; 1079; 1151; 1214; 1229; 1261; 1342; 1385; 1394; 1426; 1499; 1736; 1750; 1811; 1936; 1965; 2000; 2068; 2070; 2137; 2200; 2230; 2243; 2291; 2312; 2582; 2687; 2718; 2732; 2768; 2770; 2947; 3011; 3084; 3389; 3667; 3739; 3741; 3743; 3823; 4114; 4158; 4168; 4246; 4252; 4265; 4282; 4348; 4403; 4624; 4675; 4687; 4780; 4793
FalI	AAGNNNNNCTTNNNNNNNNNNNN!	0	
FalI	!NNNNNNNNAAGNNNNNCTT	0	
FaqI	GGGACNNNNNNNNNN!	0	
FaqI	!NNNNNNNNNNNNNGTCCC	0	
FatI	!CATG	21	133; 297; 346; 531; 993; 1042; 1227; 1998; 2228; 2289; 2310; 2580; 2685; 2945; 3665; 4156; 4166; 4244; 4280; 4673; 4778
FauI	CCCGCNNNN!	1	1912
FauI	!NNNNNNNGCGGG	2	2356; 2650
FauNDI	CA!TATG	1	2768
FbaI	T!GATCA	0	
FblI	GT!MKAC	1	2717
FmuI	GGNC!C	8	559; 1255; 2472; 3883; 3962; 3979; 4201; 4817
Fnu4HI	GC!NGC	23	161; 1643; 2269; 2528; 2539; 2585; 2682; 2735; 2851; 2869; 2872; 2990; 3145; 3288; 3353; 3356; 3562; 3827; 3890; 4229; 4256; 4351; 4580
FokI	GGATGNNNNNNNN!	1	2633
FokI	!NNNNNNNNNNNNNCATCC	4	1907; 3804; 3985; 4272
FriOI	GRGCY!C	1	143
FseI	GGCCGG!CC	0	
FspI	TGC!GCA	1	4060
FspAI	RTGC!GCAY	0	
FspBI	C!TAG	10	365; 818; 1061; 1514; 1676; 2424; 2533; 3440; 3693; 4028
FspEI	CCNNNNNNNNNNNN!	122	13; 144; 162; 281; 329; 359; 410; 434; 552; 572; 605; 626; 717; 746; 848; 869; 977; 1025; 1055; 1106; 1130; 1248; 1268; 1301; 1322; 1413; 1442; 1544; 1562; 1593; 1616; 1656; 1684; 1752; 1767; 1821; 1854; 1895; 1917; 1937; 1993; 2011; 2053; 2116; 2166; 2187; 2208; 2229; 2282; 2307; 2323; 2410; 2485; 2522; 2538; 2555; 2585; 2603; 2638; 2653; 2698; 2779; 2798; 2824; 2841; 2928; 2974; 2992; 3022; 3036; 3085; 3106; 3129; 3143; 3158; 3172; 3187; 3258; 3281; 3298; 3312; 3333; 3359; 3437; 3491; 3528; 3543; 3614; 3705; 3781; 3803; 3834; 3850; 3887; 3914; 3932; 3958; 3975; 3992; 4008; 4033; 4058; 4086; 4143; 4176; 4206; 4242; 4298; 4338; 4370; 4384; 4407; 4484; 4511; 4554; 4593; 4645; 4739; 4753; 4782; 4803; 4829
FspEI	!NNNNNNNNNNNNNNNGG	132	21; 53; 85; 104; 128; 151; 196; 233; 260; 293; 325; 344; 410; 446; 481; 518; 539; 563; 605; 631; 719; 842; 892; 929; 956; 989; 1021; 1040; 1106; 1142; 1177; 1214; 1235; 1259; 1301; 1327; 1415; 1536; 1558; 1602; 1621; 1645; 1666; 1687; 1715; 1743; 1765; 1813; 1867; 1909; 1934; 2013; 2037; 2068; 2089; 2145; 2176; 2215; 2234; 2257; 2288; 2340; 2366; 2393; 2416; 2435; 2453; 2480; 2500; 2538; 2576; 2603; 2630; 2649; 2694; 2719; 2757; 2784; 2802; 2842; 2863; 2881; 2909; 2942; 2971; 2997; 3045; 3079; 3137; 3163; 3198; 3217; 3235; 3284; 3310; 3334; 3354; 3377; 3402; 3429; 3473; 3500; 3518; 3569; 3601; 3638; 3666; 3738; 3769; 3846; 3904; 3938; 3959; 4005; 4067; 4094; 4115; 4168; 4210; 4231; 4295; 4335; 4357; 4415; 4446; 4535; 4554; 4573; 4645; 4664; 4703; 4785
Fsp4HI	GC!NGC	23	161; 1643; 2269; 2528; 2539; 2585; 2682; 2735; 2851; 2869; 2872; 2990; 3145; 3288; 3353; 3356; 3562; 3827; 3890; 4229; 4256; 4351; 4580
GdiII	C!GGCCR	0	
GdiII	Y!GGCCG	1	4226
GlaI	GC!GC	14	2547; 2650; 2680; 2821; 2854; 3124; 3191; 3291; 3465; 3574; 3967; 4060; 4397; 4729
GluI	GC!NGC	23	161; 1643; 2269; 2528; 2539; 2585; 2682; 2735; 2851; 2869; 2872; 2990; 3145; 3288; 3353; 3356; 3562; 3827; 3890; 4229; 4256; 4351; 4580
GsaI	CCCAG!C	0	
GsaI	GCTGG!G	1	3253
GsuI	CTGGAGNNNNNNNNNNNNNN!	1	2049
GsuI	!NNNNNNNNNNNNNCTCCAG	2	839; 3908

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
HaeI	WGG!CCW	5	2107; 2194; 2960; 2971; 3423
HaeII	RGCG!Y	2	2823; 3193
HaeIII	GG!CC	13	1840; 1885; 2107; 2194; 2471; 2960; 2971; 2989; 3423; 3881; 3961; 4228; 4815
HaeIV	GAYNNNNNRTCNNNNNNNNNNNNN!	5	498; 699; 1194; 1395; 3857
HaeIV	!NNNNNNNNNGAYNNNNNRTC	5	464; 665; 1160; 1361; 3823
HaeIV	GAYNNNNNRTCNNNNNNNNNNNNN!	5	497; 698; 1193; 1394; 3856
HaeIV	!NNNNNNNGAYNNNNNRTC	5	466; 667; 1162; 1363; 3825
HapII	C!CGG	16	151; 1646; 1882; 1924; 2052; 2591; 2625; 3152; 3299; 3325; 3515; 3919; 3953; 4020; 4130; 4372
HgaI	GACGCNNNNN!	2	3056; 3634
HgaI	!NNNNNNNNNGCGTC	2	2640; 4364
HhaI	GCG!C	14	2548; 2651; 2681; 2822; 2855; 3125; 3192; 3292; 3466; 3575; 3968; 4061; 4398; 4730
Hin1I	GR!CGYC	2	4375; 4757
Hin1II	CATG!	21	137; 301; 350; 535; 997; 1046; 1231; 2002; 2232; 2293; 2314; 2584; 2689; 2949; 3669; 4160; 4170; 4248; 4284; 4677; 4782
Hin4I	GAYNNNNNVTCNNNNNNNNNNNN!	7	497; 698; 1193; 1394; 1934; 3856; 3930
Hin4I	!NNNNNNNNNGABNNNNNRTC	5	465; 666; 1161; 1362; 3824
Hin4I	GABNNNNNRTCNNNNNNNNNNNNN!	5	497; 698; 1193; 1394; 3856
Hin4I	!NNNNNNNNNGAYNNNNNVTC	7	465; 666; 1161; 1362; 1902; 3824; 3898
Hin6I	G!CGC	14	2546; 2649; 2679; 2820; 2853; 3123; 3190; 3290; 3464; 3573; 3966; 4059; 4396; 4728
HinP1I	G!CGC	14	2546; 2649; 2679; 2820; 2853; 3123; 3190; 3290; 3464; 3573; 3966; 4059; 4396; 4728
HincII	GTY!RAC	0	
HindII	GTY!RAC	0	
HindIII	A!AGCTT	1	1555
Hinfi	G!ANTC	11	55; 187; 883; 1576; 1667; 2277; 2418; 2845; 2920; 3316; 3833
HpaI	GTT!AAC	0	
HpaII	C!CGG	16	151; 1646; 1882; 1924; 2052; 2591; 2625; 3152; 3299; 3325; 3515; 3919; 3953; 4020; 4130; 4372
HphI	GGTGANNNNNNNN!	12	262; 673; 958; 1369; 1674; 1963; 2107; 2175; 2509; 2567; 4324; 4565
HphI	!NNNNNNNTCACC	7	1969; 2163; 2217; 3681; 3908; 4530; 4819
Hpy8I	GTN!NAC	7	1977; 2500; 2718; 2763; 3261; 3749; 4507
Hpy99I	CGWCG!	4	2047; 3050; 3844; 4107
Hpy166II	GTN!NAC	7	1977; 2500; 2718; 2763; 3261; 3749; 4507
Hpy188I	TCN!GA	14	828; 1524; 1607; 1629; 2576; 2742; 3059; 3137; 3490; 3624; 3759; 4205; 4216; 4336
Hpy188III	TC!NNGA	28	3; 125; 365; 397; 421; 484; 613; 1061; 1093; 1117; 1180; 1309; 1617; 1694; 1924; 2028; 2509; 2533; 3179; 3313; 3411; 3509; 3592; 3666; 3925; 4674; 4779; 4809
HpyAV	CCTTCNNNNNN!	3	3185; 3495; 4203
HpyAV	!NNNNNGAAGG	13	208; 241; 301; 418; 493; 904; 937; 997; 1114; 1189; 3437; 3950; 4562
HpyCH4III	ACN!GT	16	222; 918; 1743; 1821; 1854; 1951; 1992; 2095; 2342; 2564; 2599; 2909; 2980; 3450; 3763; 4278
HpyCH4IV	A!CGT	7	2014; 2189; 2698; 3648; 4064; 4437; 4757
HpyCH4V	TG!CA	11	762; 1458; 2584; 2763; 3261; 3557; 3892; 3982; 4175; 4263; 4507
HpyF3I	C!TNAG	12	1567; 1604; 1700; 2148; 2454; 2510; 2755; 3220; 3629; 3795; 4335; 4761
HpyF10VI	GCNNNNN!NNGC	15	33; 718; 814; 1414; 1510; 1563; 1681; 1705; 2268; 2769; 2819; 2884; 2998; 3570; 3958
Hsp92I	GR!CGYC	2	4375; 4757
Hsp92II	CATG!	21	137; 301; 350; 535; 997; 1046; 1231; 2002; 2232; 2293; 2314; 2584; 2689; 2949; 3669; 4160; 4170; 4248; 4284; 4677; 4782
HspAI	G!CGC	14	2546; 2649; 2679; 2820; 2853; 3123; 3190; 3290; 3464; 3573; 3966; 4059; 4396; 4728
KasI	G!GCGCC	0	
KfiI	GG!GWCCC	0	
KpnI	GGTAC!C	3	149; 539; 1235
Kpn2I	T!CCGGA	1	1923
KspI	CCG!GG	1	1552
Ksp22I	T!GATCA	0	
KspAI	GTT!AAC	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Kzo9I	!GATC	19	121; 127; 700; 850; 1396; 1589; 3511; 3586; 3597; 3605; 3683; 3695; 3800; 4141; 4159; 4205; 4463; 4480; 4516
LguI	GCTCTTCN!	1	2829
LguI	!NNNNGAAGAGC	0	
LpnI	RGC!GCGY	2	2821; 3191
LpnPI	CCDGNNNNNNNNNN!	51	164; 410; 434; 560; 626; 746; 848; 869; 1106; 1130; 1256; 1322; 1442; 1544; 1593; 1659; 1828; 1895; 1921; 1937; 2065; 2116; 2172; 2187; 2420; 2522; 2604; 2638; 2705; 2974; 3038; 3106; 3143; 3165; 3312; 3338; 3491; 3528; 3843; 3897; 3932; 3958; 3992; 4015; 4033; 4058; 4143; 4385; 4497; 4554; 4766
LpnPI	!NNNNNNNNNNNNNNCHGG	53	136; 158; 260; 563; 719; 842; 956; 1259; 1415; 1602; 1631; 1679; 1715; 1813; 1867; 1909; 1942; 2013; 2037; 2089; 2145; 2257; 2344; 2393; 2452; 2576; 2610; 2630; 2706; 2802; 2909; 2958; 2983; 3062; 3092; 3137; 3235; 3284; 3310; 3334; 3354; 3500; 3518; 3863; 3904; 3938; 4005; 4067; 4115; 4295; 4357; 4535; 4645
Lsp1109I	GCAGCNNNNNNNN!	5	2596; 2693; 3364; 3573; 4267
Lsp1109I	!NNNNNNNNNNNNNGCTGC	7	147; 2525; 2837; 2855; 3274; 3813; 3876
LweI	GCATCNNNNN!	9	817; 1513; 1770; 2443; 2746; 2822; 3042; 4094; 4534
LweI	!NNNNNNNNNNGATGC	4	2255; 2611; 2782; 4285
MabI	A!CCWGGT	0	
MaeI	C!TAG	10	365; 818; 1061; 1514; 1676; 2424; 2533; 3440; 3693; 4028
MaeII	A!CGT	7	2014; 2189; 2698; 3648; 4064; 4437; 4757
MaeIII	!GTNAC	14	300; 996; 1984; 2089; 2599; 2694; 3301; 3364; 3480; 3763; 4094; 4152; 4305; 4493
MalI	GA!TC	19	123; 129; 702; 852; 1398; 1591; 3513; 3588; 3599; 3607; 3685; 3697; 3802; 4143; 4161; 4207; 4465; 4482; 4518
MaqI	CRTTGACNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN!	0	
MaqI	!NNNNNNNNNNNNNNNNNNNNNGTCAAYG	0	
MauBI	CG!CGCGCG	0	
MbiI	CCG!CTC	1	2530
MbiI	GAG!CGG	4	36; 68; 2878; 4679
MboI	!GATC	19	121; 127; 700; 850; 1396; 1589; 3511; 3586; 3597; 3605; 3683; 3695; 3800; 4141; 4159; 4205; 4463; 4480; 4516
MboII	GAAGANNNNNNNN!	3	469; 1165; 3607
MboII	!NNNNNNNTCTTC	7	2202; 2816; 3678; 4433; 4511; 4620; 4816
McaTI	GCGC!GC	0	
MfeI	C!AATTG	1	59
MfII	R!GATCY	11	127; 700; 850; 1396; 1589; 3586; 3597; 3683; 3695; 4463; 4480
MhII	GDGCH!C	8	143; 315; 1011; 2398; 2765; 3263; 4424; 4509
MisI	TGG!CCA	1	2194
MluI	A!CGCGT	0	
MluNI	TGG!CCA	1	2194
MlyI	GAGTCNNNNN!	1	3325
MlyI	!NNNNNGACTC	4	1570; 2412; 2839; 3827
Mly113I	GG!CGCC	0	
MmeI	TCCRACNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN!	2	3160; 3344
MmeI	!NNNNNNNNNNNNNNNNNNNNNGTYGGA	0	
MnII	CCTCNNNNNNN!	8	10; 1613; 2552; 2582; 2844; 3127; 4005; 4211
MnII	!NNNNNNGAGG	9	93; 112; 1773; 2424; 3053; 3377; 3777; 3858; 4805
Mph1103I	ATGCA!T	0	
MreI	CG!CCGGCG	0	
MroI	T!CCGGA	1	1923
MroNI	G!CCGGC	0	
MroXI	GAANN!NNTTC	1	4437
MscI	TGG!CCA	1	2194
MseI	T!TAA	29	95; 109; 200; 224; 239; 407; 524; 896; 920; 935; 1103; 1220; 1545; 1559; 1846; 2185; 2327; 2379; 2400; 2726; 3651; 3703; 3708; 3722; 3775; 4010; 4049; 4414; 4786
MslI	CAYNN!NNRTG	3	4090; 4249; 4608
MspI	C!CGG	16	151; 1646; 1882; 1924; 2052; 2591; 2625; 3152; 3299; 3325; 3515; 3919; 3953; 4020; 4130; 4372
Msp20I	TGG!CCA	1	2194
MspA1I	CMG!CKG	7	1551; 1827; 2271; 2657; 3287; 3532; 4473
MspCI	C!TTAAG	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
MspJI	CNNRNNNNNNNNNN!	211	13; 49; 81; 94; 137; 150; 163; 185; 287; 310; 359; 377; 394; 409; 433; 446; 464; 491; 544; 559; 590; 611; 625; 707; 745; 761; 775; 830; 847; 868; 881; 983; 1006; 1055; 1073; 1090; 1105; 1129; 1142; 1160; 1187; 1240; 1255; 1286; 1307; 1321; 1403; 1441; 1457; 1471; 1526; 1543; 1562; 1579; 1592; 1605; 1618; 1640; 1658; 1683; 1697; 1712; 1742; 1766; 1811; 1827; 1840; 1866; 1882; 1906; 1920; 1936; 1969; 1994; 2011; 2040; 2053; 2077; 2099; 2115; 2128; 2160; 2186; 2202; 2230; 2247; 2260; 2275; 2293; 2323; 2338; 2371; 2411; 2436; 2450; 2466; 2479; 2521; 2545; 2559; 2587; 2602; 2619; 2637; 2652; 2670; 2687; 2703; 2722; 2737; 2753; 2767; 2798; 2824; 2847; 2868; 2887; 2900; 2928; 2946; 2966; 2984; 3003; 3022; 3037; 3051; 3065; 3079; 3105; 3118; 3132; 3148; 3164; 3191; 3209; 3232; 3257; 3274; 3292; 3306; 3325; 3346; 3361; 3374; 3390; 3416; 3436; 3452; 3484; 3501; 3521; 3535; 3570; 3584; 3602; 3629; 3651; 3678; 3704; 3744; 3764; 3780; 3802; 3834; 3850; 3874; 3890; 3914; 3927; 3957; 3974; 3991; 4014; 4032; 4057; 4072; 4094; 4109; 4142; 4157; 4177; 4216; 4242; 4255; 4276; 4293; 4322; 4337; 4369; 4383; 4396; 4412; 4435; 4457; 4470; 4496; 4510; 4523; 4553; 4571; 4585; 4616; 4633; 4672; 4686; 4726; 4739; 4752; 4765; 4791; 4816
MspJI	!NNNNNNNNNNNNYNGG	197	10; 49; 100; 120; 137; 158; 178; 196; 230; 257; 274; 311; 333; 351; 383; 407; 440; 457; 481; 518; 545; 563; 599; 617; 637; 658; 702; 719; 741; 779; 797; 817; 842; 874; 892; 926; 953; 970; 1007; 1029; 1047; 1079; 1103; 1136; 1153; 1177; 1214; 1241; 1259; 1295; 1313; 1333; 1354; 1398; 1415; 1437; 1475; 1493; 1513; 1536; 1554; 1579; 1602; 1621; 1646; 1666; 1687; 1716; 1763; 1801; 1822; 1852; 1886; 1909; 1939; 1968; 1985; 2013; 2037; 2059; 2078; 2116; 2135; 2160; 2185; 2204; 2230; 2258; 2276; 2297; 2333; 2350; 2377; 2394; 2414; 2441; 2461; 2481; 2501; 2519; 2538; 2560; 2577; 2597; 2622; 2640; 2660; 2678; 2707; 2726; 2755; 2780; 2802; 2821; 2838; 2856; 2892; 2909; 2932; 2958; 2977; 2998; 3016; 3039; 3058; 3079; 3104; 3121; 3138; 3163; 3192; 3211; 3232; 3257; 3275; 3299; 3320; 3348; 3369; 3397; 3416; 3440; 3464; 3486; 3519; 3536; 3556; 3578; 3601; 3633; 3652; 3679; 3728; 3765; 3782; 3816; 3841; 3863; 3888; 3905; 3931; 3949; 3977; 4006; 4027; 4044; 4068; 4087; 4110; 4131; 4153; 4173; 4200; 4231; 4267; 4289; 4312; 4333; 4353; 4370; 4416; 4446; 4464; 4488; 4508; 4527; 4551; 4581; 4645; 4662; 4687; 4704; 4725; 4748; 4765; 4786; 4806
MspR9I	CC!NGG	17	151; 152; 734; 857; 1430; 1647; 2104; 2160; 2408; 2591; 2626; 2973; 3094; 3107; 3325; 4021; 4372
MssI	GTTT!AAAC	0	
MunI	C!AATTG	1	59
MvaI	CC!WGG	9	734; 857; 1430; 2104; 2160; 2408; 2973; 3094; 3107
MvaI269I	GAATGCN!	2	1920; 2327
MvaI269I	G!CATTC	0	
MvnI	CG!CG	9	1551; 2546; 2548; 2651; 2992; 3573; 3903; 4396; 4728
MvrI	CGAT!CG	1	4208
MwoI	GCNNNNN!NNGC	15	33; 718; 814; 1414; 1510; 1563; 1681; 1705; 2268; 2769; 2819; 2884; 2998; 3570; 3958
NaeI	GCC!GGC	0	
NarI	GG!CGCC	0	
NciI	CC!SGG	8	151; 152; 1647; 2591; 2626; 3325; 4021; 4372
NcoI	C!CATGG	1	2228
NdeI	CA!TATG	1	2768
NdeII	!GATC	19	121; 127; 700; 850; 1396; 1589; 3511; 3586; 3597; 3605; 3683; 3695; 3800; 4141; 4159; 4205; 4463; 4480; 4516
NgoAVIII	GACNNNNNTGANNNNNNNNNNNN!	0	
NgoAVIII	!NNNNNNNNNNNTCANNNNNGTC	2	4084; 4309
NgoAVIII	TCANNNNNGTCNNNNNNNNNNNNNN!	2	4120; 4345
NgoAVIII	!NNNNNNNNNNNGACNNNNNTGA	0	
NgoMIV	G!CCGGC	0	
NheI	G!CTAGC	1	1675
NlaIII	CATG!	21	137; 301; 350; 535; 997; 1046; 1231; 2002; 2232; 2293; 2314; 2584; 2689; 2949; 3669; 4160; 4170; 4248; 4284; 4677; 4782
NlaIV	GGN!NCC	16	129; 147; 344; 537; 590; 1040; 1233; 1286; 2395; 2977; 3016; 3788; 3882; 3923; 4134; 4724
NlaCI	CATCACNNNNNNNNNNNNNNNNNN!	1	3058

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
NlaCI	!NNNNNNNNNNNNNNNNNGTGATG	4	239; 935; 2282; 2538
Nli3877I	CYCGR!G	2	5; 154
NmeAIII	GCCGAGNNNNNNNNNNNNNNNNNNNN!	1	3987
NmeAIII	!NNNNNNNNNNNNNNNNNNNNCTCGGC	0	
NmeDI	RCCGGYNNNNNNNN!	1	3930
NmeDI	!NNNNNNNNNNNNNNNRCCGGY	1	3905
NmuCI	!GTSAC	4	2599; 2694; 4094; 4305
NotI	GC!GGCCGC	0	
NruI	TCG!CGA	0	
NsbI	TGC!GCA	1	4060
NsiI	ATGCA!T	0	
NspI	RCATG!Y	3	137; 2584; 2949
NspV	TT!CGAA	0	
OliI	CACNN!NNGTG	0	
PabI	GTA!C	11	148; 220; 280; 538; 916; 976; 1234; 1807; 2345; 2754; 4319
PacI	TTAAT!TAA	0	
PaeI	GCATG!C	1	137
PaeR7I	C!TCGAG	1	1
PagI	T!CATGA	3	3665; 4673; 4778
PalAI	GG!CGCGCC	0	
PasI	CC!CWGGG	1	2159
PauI	G!CGCGC	0	
PceI	AGG!CCT	0	
PciI	A!CATGT	1	2945
PciSI	GCTTTCN!	1	2829
PciSI	!NNNNGAAGAGC	0	
PcsI	WCGNNNN!NNNCGW	3	2871; 3269; 4146
PctI	GAATGCN!	2	1920; 2327
PctI	G!CATTC	0	
PdiI	GCC!GGC	0	
PdmI	GAANN!NNTTC	1	4437
PfeI	G!AWTC	6	55; 187; 883; 1667; 2277; 2920
Pfl23II	C!GTACG	0	
PfIFI	GACN!NNGTC	1	2692
PfIMI	CCANNNN!NTGG	5	274; 619; 970; 1315; 2159
PfoI	T!CCNGGA	1	2589
PhoI	GG!CC	13	1840; 1885; 2107; 2194; 2471; 2960; 2971; 2989; 3423; 3881; 3961; 4228; 4815
PinAI	A!CCGGT	0	
PlaDI	CATCAGNNNNNNNNNNNNNNNNNNNN!	2	2764; 2840
PlaDI	!NNNNNNNNNNNNNNNNNNNNCTGATG	4	531; 1227; 1889; 2243
PleI	GAGTCNNNN!	1	3324
PleI	!NNNNNGACTC	4	1570; 2412; 2839; 3827
Ple19I	CGAT!CG	1	4208
PmaCI	CAC!GTG	0	
PmeI	GTTT!AAAC	0	
PmII	CAC!GTG	0	
PpiI	GAACNNNNNCTCNNNNNNNNNNNNNN!	1	3660
PpiI	!NNNNNNNNNGAGNNNNNGTTC	1	4470
PpiI	GAGNNNNNGTTCNNNNNNNNNNNNNN!	1	4502
PpiI	!NNNNNNNGAACNNNNNNCTC	1	3628
PpsI	GAGTCNNNN!	1	3324
PpsI	!NNNNNGACTC	4	1570; 2412; 2839; 3827
Ppu10I	A!TGCAT	0	
Ppu21I	YAC!GTR	1	2699
PpuMI	RG!GWCCY	0	
PscI	A!CATGT	1	2945
PshAI	GACNN!NNGTC	0	
PshBI	AT!TAAT	1	4010
PsiI	TTA!TAA	3	49; 518; 1214
Psp03I	GGWC!C	4	559; 1255; 3979; 4201
Psp5II	RG!GWCCY	0	
Psp6I	!CCWGG	9	732; 855; 1428; 2102; 2158; 2406; 2971; 3092; 3105
Psp1406I	AA!CGTT	3	2014; 4064; 4437
Psp124BI	GAGCT!C	1	143

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
PspCI	CAC!GTG	0	
PspEI	G!GTNACC	0	
PspGI	!CCWGG	9	732; 855; 1428; 2102; 2158; 2406; 2971; 3092; 3105
PspLI	C!GTACG	0	
PspN4I	GGN!NCC	16	129; 147; 344; 537; 590; 1040; 1233; 1286; 2395; 2977; 3016; 3788; 3882; 3923; 4134; 4724
PspOMI	G!GGCCC	0	
PspOMII	CGCCCARNNNNNNNNNNNNNNNNNNNN!	0	
PspOMII	!NNNNNNNNNNNNNNNNNNNYTGGGCG	0	
PspPI	G!GNCC	8	556; 1252; 2469; 3880; 3959; 3976; 4198; 4814
PspPPI	RG!GWCCY	0	
PspPRI	CCYAGNNNNNNNNNNNNNNNN!	2	1623; 3902
PspPRI	!NNNNNNNNNNNNNNNNCTGRGG	1	2394
PspXI	VC!TCGAGB	0	
PsrI	GAACNNNNNNNTACNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGTANNNNNNGTTC	0	
PsrI	GTANNNNNNGTTCNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGAACNNNNNNNTAC	0	
PssI	RGGNC!CY	1	4817
PstI	CTGCA!G	0	
PstNI	CAGNNN!CTG	1	3361
PsuI	R!GATCY	11	127; 700; 850; 1396; 1589; 3586; 3597; 3683; 3695; 4463; 4480
Psyl	GACN!NNGTC	1	2692
PteI	G!CGCGC	0	
PvuI	CGAT!CG	1	4208
PvuII	CAG!CTG	1	1827
RcaI	T!CATGA	3	3665; 4673; 4778
RceI	CATCGACNNNNNNNNNNNNNNNNNNNN!	0	
RceI	!NNNNNNNNNNNNNNNNNGTCGATG	0	
RgaI	GCGAT!CGC	0	
RigI	GGCCGG!CC	0	
RleAI	CCCACANNNNNNNNNNNNNN!	0	
RleAI	!NNNNNNNNNNNTGTGGG	0	
RpaBI	CCCGCAGNNNNNNNNNNNNNNNNNNNN!	0	
RpaBI	!NNNNNNNNNNNNNNNNNNCTGCGGG	0	
RpaB5I	CGRGGACNNNNNNNNNNNNNNNNNNNN!	0	
RpaB5I	!NNNNNNNNNNNNNNNNNNGTCCYCG	0	
RruI	TCG!CGA	0	
RsaI	G!IAC	11	147; 219; 279; 537; 915; 975; 1233; 1806; 2344; 2753; 4318
RsaNI	G!TAC	11	146; 218; 278; 536; 914; 974; 1232; 1805; 2343; 2752; 4317
RseI	CAYNN!NNRTG	3	4090; 4249; 4608
RsrII	CG!GWCCG	0	
Rsr2I	CG!GWCCG	0	
SacI	GAGCT!C	1	143
SacII	CCGC!GG	1	1552
SalI	G!TCGAC	0	
SapI	GCTCTCN!	1	2829
SapI	!NNNNGAAGAGC	0	
SaqAI	T!TAA	29	95; 109; 200; 224; 239; 407; 524; 896; 920; 935; 1103; 1220; 1545; 1559; 1846; 2185; 2327; 2379; 2400; 2726; 3651; 3703; 3708; 3722; 3775; 4010; 4049; 4414; 4786
SatI	GC!NGC	23	161; 1643; 2269; 2528; 2539; 2585; 2682; 2735; 2851; 2869; 2872; 2990; 3145; 3288; 3353; 3356; 3562; 3827; 3890; 4229; 4256; 4351; 4580
Sau96I	G!GNCC	8	556; 1252; 2469; 3880; 3959; 3976; 4198; 4814
Sau3AI	!GATC	19	121; 127; 700; 850; 1396; 1589; 3511; 3586; 3597; 3605; 3683; 3695; 3800; 4141; 4159; 4205; 4463; 4480; 4516
SbfI	CCTGCA!GG	0	
ScaI	AGT!ACT	2	2344; 4318
SchI	GAGTCNNNNN!	1	3325
SchI	!NNNNNGACTC	4	1570; 2412; 2839; 3827
SciI	CTC!GAG	1	3
ScrFI	CC!NGG	17	151; 152; 734; 857; 1430; 1647; 2104; 2160; 2408; 2591; 2626; 2973; 3094; 3107; 3325; 4021; 4372
SdaI	CCTGCA!GG	0	
SdeAI	CAGRAGNNNNNNNNNNNNNNNNNNNN!	5	448; 1144; 1720; 3995; 4241

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SdeAI	!NNNNNNNNNNNNNNNNNNNNCTYCTG	3	1558; 2487; 3108
SdeOSI	GACNNNNRTGANNNNNNNNNNN!	0	
SdeOSI	!NNNNNNNNNNNTCAYNNNNNGTC	1	4085
SdeOSI	TCAYNNNNNGTCNNNNNNNNNNNN!	1	4119
SdeOSI	!NNNNNNNNNNNNGACNNNNRTGA	0	
SduI	GDGCH!C	8	143; 315; 1011; 2398; 2765; 3263; 4424; 4509
SeI	!CGCG	9	1549; 2544; 2546; 2649; 2990; 3571; 3901; 4394; 4726
SetI	ASST!	68	2; 143; 162; 219; 252; 258; 312; 429; 504; 714; 723; 738; 846; 861; 915; 948; 954; 1008; 1125; 1200; 1410; 1419; 1434; 1542; 1559; 1568; 1573; 1605; 1677; 1681; 1701; 1710; 1810; 1829; 1958; 2017; 2105; 2192; 2261; 2285; 2429; 2540; 2574; 2589; 2608; 2701; 2889; 3064; 3115; 3161; 3217; 3236; 3251; 3388; 3487; 3508; 3651; 3694; 3792; 3828; 4029; 4067; 4129; 4192; 4440; 4755; 4760; 4792
SexAI	A!CCWGGT	0	
SfaAI	GCGAT!CGC	0	
SfaNI	GCATCNNNNN!	9	817; 1513; 1770; 2443; 2746; 2822; 3042; 4094; 4534
SfaNI	!NNNNNNNNNNGATGC	4	2255; 2611; 2782; 4285
Sfcl	C!TRYAG	3	3210; 3401; 4079
SfiI	GGCCNNNN!NGGCC	0	
SfoI	GGC!GCC	0	
Sfr274I	C!TCGAG	1	1
Sfr303I	CCGC!GG	1	1552
SfuI	TT!CGAA	0	
SgeI	CNNGNNNNNNNNN!	157	13; 137; 150; 163; 185; 287; 310; 359; 377; 409; 433; 446; 496; 544; 559; 590; 625; 745; 830; 847; 868; 881; 983; 1006; 1055; 1073; 1105; 1129; 1142; 1192; 1240; 1255; 1286; 1321; 1441; 1526; 1543; 1562; 1584; 1605; 1629; 1647; 1684; 1697; 1742; 1827; 1840; 1884; 1912; 1936; 1969; 1994; 2011; 2040; 2053; 2089; 2115; 2171; 2186; 2202; 2230; 2260; 2284; 2302; 2323; 2371; 2419; 2436; 2479; 2521; 2545; 2559; 2593; 2619; 2637; 2652; 2670; 2687; 2704; 2733; 2829; 2847; 2868; 2887; 2936; 2958; 2973; 3003; 3037; 3065; 3084; 3105; 3118; 3132; 3153; 3171; 3191; 3218; 3258; 3274; 3292; 3311; 3325; 3346; 3361; 3374; 3395; 3423; 3452; 3490; 3521; 3545; 3570; 3584; 3604; 3629; 3659; 3678; 3705; 3764; 3842; 3855; 3874; 3890; 3914; 3931; 3957; 3975; 3991; 4014; 4032; 4057; 4094; 4109; 4142; 4157; 4179; 4257; 4293; 4322; 4338; 4370; 4383; 4396; 4457; 4472; 4496; 4514; 4553; 4577; 4616; 4672; 4686; 4739; 4765; 4791; 4821
SgeI	!NNNNNNNNNNNNNCNNG	138	111; 128; 159; 261; 284; 333; 351; 383; 407; 470; 518; 545; 564; 599; 719; 804; 821; 842; 957; 980; 1029; 1047; 1079; 1103; 1166; 1214; 1241; 1260; 1295; 1415; 1500; 1517; 1536; 1558; 1579; 1603; 1621; 1658; 1680; 1716; 1801; 1858; 1886; 1910; 1943; 1968; 1985; 2014; 2038; 2063; 2089; 2145; 2176; 2204; 2234; 2258; 2276; 2297; 2345; 2393; 2410; 2453; 2495; 2519; 2567; 2593; 2611; 2631; 2654; 2672; 2707; 2803; 2821; 2842; 2861; 2910; 2932; 2958; 2977; 3011; 3039; 3058; 3079; 3104; 3127; 3145; 3165; 3192; 3232; 3257; 3285; 3310; 3335; 3355; 3397; 3426; 3464; 3495; 3519; 3544; 3578; 3603; 3633; 3652; 3679; 3738; 3816; 3848; 3870; 3888; 3905; 3931; 3949; 3988; 4006; 4031; 4068; 4087; 4116; 4136; 4153; 4231; 4267; 4296; 4344; 4370; 4431; 4470; 4488; 4527; 4551; 4590; 4646; 4713; 4739; 4765; 4795; 4817
SgfI	GCGAT!CGC	0	
SgrAI	CR!CCGGYG	0	
SgrBI	CCGC!GG	1	1552
SgrDI	CG!TCGACG	0	
SgsI	GG!CGCGCC	0	
SimI	GG!GTC	4	154; 362; 1058; 3620
SimI	!GACCC	3	2688; 3137; 3906
SinI	G!GWCC	4	556; 1252; 3976; 4198
SlaI	C!TCGAG	1	1
SmaI	CCC!GGG	1	152
SmiI	ATTT!AAAT	0	
SmiMI	CAYNN!NNRTG	3	4090; 4249; 4608
SmlI	C!TYRAG	6	1; 2428; 3051; 3313; 3590; 4458
SmoI	C!TYRAG	6	1; 2428; 3051; 3313; 3590; 4458
SmuI	CCCGCNNNN!	1	1912



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SmuI	!NNNNNNGCGGG	2	2356; 2650
SnaBI	TAC!GTA	0	
SpeI	A!CTAGT	0	
SphI	GCATG!C	1	137
SrfI	GCCC!GGGC	0	
Sse9I	!AATT	26	17; 44; 59; 76; 88; 106; 197; 293; 392; 504; 540; 796; 893; 989; 1088; 1200; 1236; 1492; 1542; 1560; 1927; 2332; 2371; 3705; 4011; 4266
Sse8387I	CCTGCA!GG	0	
Sse8647I	AG!GWCCT	0	
SseBI	AGG!CCT	0	
SsiI	C!CGC	23	131; 1549; 1643; 1905; 2269; 2525; 2528; 2785; 2811; 2828; 2990; 3018; 3145; 3164; 3285; 3530; 3901; 3992; 4229; 4394; 4471; 4580; 4726
SsiI	G!CGG	18	36; 68; 1551; 2363; 2618; 2657; 2667; 2709; 2734; 2772; 2871; 2878; 2899; 3395; 3539; 4183; 4350; 4679
SspI	AAT!ATT	4	790; 1486; 2239; 4642
SspDI	G!GCGCC	0	
SspD5I	GGTGANNNNNNNN!	12	262; 673; 958; 1369; 1674; 1963; 2107; 2175; 2509; 2567; 4324; 4565
SspD5I	!NNNNNNNNNTCACC	7	1968; 2162; 2216; 3680; 3907; 4529; 4818
SstI	GAGCT!C	1	143
SstII	CCGC!GG	1	1552
SstE37I	CGAAGACNNNNNNNNNNNNNNNNNNNNNN!	0	
SstE37I	!NNNNNNNNNNNNNNNNNNNGTCTTCG	0	
Sth132I	CCCGNNNN!	12	157; 1911; 2225; 2597; 2647; 3079; 3278; 3287; 3331; 3845; 4378; 4746
Sth132I	!NNNNNNNNCGGG	13	116; 143; 1638; 2355; 2617; 2649; 2666; 3170; 3608; 3853; 4012; 4375; 4436
Sth302II	CC!GG	16	152; 1647; 1883; 1925; 2053; 2592; 2626; 3153; 3300; 3326; 3516; 3920; 3954; 4021; 4131; 4373
StrI	C!TCGAG	1	1
StsI	GGATGNNNNNNNNNN!	1	2634
StsI	!NNNNNNNNNNNNNNNNNNNNCATCC	4	1906; 3803; 3984; 4271
StuI	AGG!CCT	0	
StyI	C!CWWGG	1	2228
StyD4I	!CCNGG	17	149; 150; 732; 855; 1428; 1645; 2102; 2158; 2406; 2589; 2624; 2971; 3092; 3105; 3323; 4019; 4370
SwaI	ATTT!AAAT	0	
TaaI	ACN!GT	16	222; 918; 1743; 1821; 1854; 1951; 1992; 2095; 2342; 2564; 2599; 2909; 2980; 3450; 3763; 4278
TaiI	ACGT!	7	2017; 2192; 2701; 3651; 4067; 4440; 4760
TaqI	T!CGA	5	2; 156; 2459; 3045; 4489
TaqII	GACCGANNNNNNNNNN!	1	4371
TaqII	!NNNNNNNNNTCGGTC	2	2847; 4186
TaqII	CACCCANNNNNNNNNN!	1	4524
TaqII	!NNNNNNNNNTGGGTG	2	2151; 4541
TasI	!AATT	26	17; 44; 59; 76; 88; 106; 197; 293; 392; 504; 540; 796; 893; 989; 1088; 1200; 1236; 1492; 1542; 1560; 1927; 2332; 2371; 3705; 4011; 4266
TatI	W!GTACW	3	2342; 2751; 4316
TauI	GCSG!C	10	1645; 2271; 2530; 2737; 2874; 2992; 3147; 4231; 4353; 4582
TfiI	G!AWTC	6	55; 187; 883; 1667; 2277; 2920
TliI	C!TCGAG	1	1
TruII	T!TAA	29	95; 109; 200; 224; 239; 407; 524; 896; 920; 935; 1103; 1220; 1545; 1559; 1846; 2185; 2327; 2379; 2400; 2726; 3651; 3703; 3708; 3722; 3775; 4010; 4049; 4414; 4786
Tru9I	T!TAA	29	95; 109; 200; 224; 239; 407; 524; 896; 920; 935; 1103; 1220; 1545; 1559; 1846; 2185; 2327; 2379; 2400; 2726; 3651; 3703; 3708; 3722; 3775; 4010; 4049; 4414; 4786
TscAI	CASTGNN!	9	1734; 2847; 3353; 3366; 3637; 3786; 3891; 4238; 4265
TseI	G!CWGC	13	160; 2538; 2584; 2681; 2850; 2868; 3287; 3352; 3355; 3561; 3826; 3889; 4255
TsoI	TARCCANNNNNNNNNN!	1	1828
TsoI	!NNNNNNNNNTGGYTA	1	4237
Tsp45I	!GTSAC	4	2599; 2694; 4094; 4305

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Tsp509I	!AATT	26	17; 44; 59; 76; 88; 106; 197; 293; 392; 504; 540; 796; 893; 989; 1088; 1200; 1236; 1492; 1542; 1560; 1927; 2332; 2371; 3705; 4011; 4266
TspDTI	ATGAANNNNNNNNNNN!	12	470; 580; 800; 818; 1166; 1276; 1496; 1514; 1927; 1957; 2345; 3729
TspDTI	!NNNNNNNNNTTCAT	12	286; 367; 520; 730; 982; 1063; 1216; 1426; 2009; 2275; 3806; 4109
TspEI	!AATT	26	17; 44; 59; 76; 88; 106; 197; 293; 392; 504; 540; 796; 893; 989; 1088; 1200; 1236; 1492; 1542; 1560; 1927; 2332; 2371; 3705; 4011; 4266
TspGWI	ACGGANNNNNNNNNNN!	1	4620
TspGWI	!NNNNNNNNNTCCGT	1	4278
TspMI	C!CCGGG	1	150
TspRI	CASTGNN!	9	1734; 2847; 3353; 3366; 3637; 3786; 3891; 4238; 4265
TstI	CACNNNNNTCCNNNNNNNNNN!	0	
TstI	!NNNNNNNGGANNNNNNGTG	0	
TstI	GGANNNNNGTGNNNNNNNNNN!	0	
TstI	!NNNNNNNCCACNNNNNTCC	0	
Tth111I	GACN!NNGTC	1	2692
Tth111II	CAARCANNNNNNNNN!	2	3535; 3574
Tth111II	!NNNNNNNNNTGYTTG	4	498; 1194; 2479; 3542
UnbI	!GNCC	8	555; 1251; 2468; 3879; 3958; 3975; 4197; 4813
Van91I	CCANNNN!NTGG	5	274; 619; 970; 1315; 2159
Vha464I	C!TTAAG	0	
VneI	G!TGCAC	3	2761; 3259; 4505
VpaK11AI	!GGWCC	4	555; 1251; 3975; 4197
VpaK11BI	G!GWCC	4	556; 1252; 3976; 4198
VspI	AT!TAAT	1	4010
XagI	CCTNN!NNNAGG	0	
XapI	R!AATTY	6	17; 293; 392; 989; 1088; 1927
XbaI	T!CTAGA	3	364; 1060; 2532
XceI	RCATG!Y	3	137; 2584; 2949
XcmI	CCANNNN!NNNNTGG	0	
XhoI	C!TCGAG	1	1
XhoII	R!GATCY	11	127; 700; 850; 1396; 1589; 3586; 3597; 3683; 3695; 4463; 4480
XmaI	C!CCGGG	1	150
XmaJI	C!CTAGG	0	
XmiI	GT!MKAC	1	2717
XmnI	GAANN!NNTTC	1	4437
XspI	C!TAG	10	365; 818; 1061; 1514; 1676; 2424; 2533; 3440; 3693; 4028
ZraI	GAC!GTC	1	4758
ZrmI	AGT!ACT	2	2344; 4318
Zsp2I	ATGCA!T	0	