

## pFusionRed-f-mem vector

### Table of restriction sites

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AanI	TTA!TAA	2	1578; 1783
AarI	CACCTGCNNNN!	0	
AarI	!NNNNNNNNGCAGGTG	0	
AasI	GACNNNN!NNGTC	3	1866; 2822; 4611
AatI	AGG!CCT	2	1039; 2616
AatII	GACGT!C	4	125; 178; 261; 447
AbsI	CC!TCGAGG	0	
AccI	GT!MKAC	2	1190; 1410
AccII	CG!CG	16	60; 1421; 1683; 1719; 2095; 2115; 2139; 2170; 2861; 3162; 3600; 3684; 3747; 3816; 4089; 4670
AccIII	T!CCGGA	1	1321
Acc16I	TGC!GCA	1	2897
Acc36I	ACCTGCNNNN!	2	3063; 3513
Acc36I	!NNNNNNNNGCAGGT	1	2682
Acc65I	G!GTACC	1	1415
AccB1I	G!GYRCC	7	465; 664; 724; 1415; 1948; 2794; 2829
AccB7I	CCANNNN!NTGG	1	1209
AccBSI	CCG!CTC	2	2219; 3408
AccBSI	GAG!CGG	2	2055; 3462
AceIII	CAGCTCNNNNNNN!	1	1751
AceIII	!NNNNNNNNNNGAGCTG	3	552; 610; 1362
AciI	C!CGC	35	58; 86; 98; 112; 279; 507; 589; 923; 1061; 1163; 1419; 2110; 2113; 2127; 2217; 2465; 2477; 2486; 2498; 2508; 2519; 2565; 2704; 2767; 3269; 3314; 3380; 3406; 3531; 3534; 3682; 3814; 4121; 4265; 4761
AciI	G!CGG	27	370; 403; 528; 758; 1070; 1112; 1421; 2055; 2082; 2170; 2280; 2861; 2925; 3026; 3029; 3309; 3364; 3462; 3600; 3747; 3887; 4130; 4375; 4496; 4515; 4642; 4670
AclI	AA!CGTT	0	
AclWI	GGATCNNNN!	9	1438; 1447; 2663; 2974; 3220; 3612; 3971; 4069; 4155
AclWI	!NNNNNGATCC	7	580; 1145; 1425; 3039; 3583; 3970; 4067
AcoI	Y!GGCCR	5	1268; 2701; 2875; 3266; 3293
AcsI	R!AATY	4	1399; 1609; 1713; 1724
AcuI	CTGAAGNNNNNNNNNNNNNNN!	3	1120; 2941; 3373
AcuI	!NNNNNNNNNNNNNCTTCAG	1	4171
AcvI	CAC!GTG	0	
AcyI	GR!CGYC	8	122; 175; 258; 444; 1187; 2795; 3497; 3576
AdeI	CACNNN!GTG	2	1260; 1911
AfaI	GT!AC	11	219; 244; 299; 332; 383; 540; 655; 805; 1057; 1417; 3101
AfeI	AGC!GCT	1	596
AfiI	CCNNNNN!NNGG	20	49; 721; 1000; 1066; 1209; 1807; 2133; 2525; 2776; 3320; 3601; 3633; 3765; 3800; 3850; 3882; 4235; 4514; 4680; 4698
AfII	C!TTAAG	0	
AfIII	A!CRYGT	2	1681; 4713
AgeI	A!CCGGT	1	600
AgsI	TTS!AA	6	687; 2206; 2250; 2260; 2673; 4249
AhdI	GACNNN!NNGTC	0	
AhII	A!CTAGT	0	
AjiI	CAC!GTC	0	
AjiI	GAC!GTG	0	
AjnI	!CCWGG	15	88; 281; 785; 929; 944; 1073; 2329; 2384; 2401; 3180; 3759; 3862; 4552; 4565; 4686
AjuI	GAANNNNNNNTTGGNNNNNNNNNNN!	0	
AjuI	!NNNNNNCCAANNNNNNNTTC	0	
AjuI	CCAANNNNNNNTTCNNNNNNNNNNN!	0	
AjuI	!NNNNNNNGAANNNNNNNTTGG	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AleI	CACNN!NNGTG	1	613
AlfI	GCANNNNNNTGCNNNNNNNNNNNN!	3	1402; 2369; 2441
AlfI	!NNNNNNNNNNGCANNNNNNNTGC	3	1368; 2335; 2407
AloI	GAACNNNNNNNTCCNNNNNNNNNNNN!	1	1877
AloI	!NNNNNNNNGGANNNNNNNGTTC	0	
AloI	GGANNNNNNNGTTCNNNNNNNNNNNN!	0	
AloI	!NNNNNNNGAACNNNNNNNTCC	1	1845
AluI	AG!CT	18	566; 624; 651; 797; 1104; 1338; 1376; 1574; 1741; 1998; 2293; 2581; 2901; 3359; 4156; 4413; 4459; 4549
AluBI	AG!CT	18	566; 624; 651; 797; 1104; 1338; 1376; 1574; 1741; 1998; 2293; 2581; 2901; 3359; 4156; 4413; 4459; 4549
AlwI	GGATCNNNN!	9	1438; 1447; 2663; 2974; 3220; 3612; 3971; 4069; 4155
AlwI	!NNNNNGATCC	7	580; 1145; 1425; 3039; 3583; 3970; 4067
Alw21I	GWGCW!C	5	694; 1391; 2908; 3098; 4403
Alw26I	GTCTCN!	1	434
Alw26I	!NNNNNGAGAC	7	1042; 1132; 1231; 2219; 2637; 3656; 3784
Alw44I	G!TGCAC	2	690; 4399
AlwNI	CAGNN!CTG	2	3896; 4304
Ama87I	C!YCGRG	1	1426
Aor13HI	T!CCGGA	1	1321
Aor51HI	AG!GCT	1	596
ApaI	GGGCC!C	1	1427
ApaBI	GCANNNNN!TGC	4	1377; 2363; 2435; 3897
ApaLI	G!TGCAC	2	690; 4399
ApeKI	G!CWGC	18	809; 953; 1251; 1367; 1376; 1571; 2090; 2755; 2856; 2898; 2939; 3032; 3419; 3872; 4098; 4304; 4307; 4372
ApoI	R!AATTY	4	1399; 1609; 1713; 1724
ApyPI	ATCGACNNNNNNNNNNNNNNNNNNNN!	1	3310
ApyPI	!NNNNNNNNNNNNNNNNNNGTCGAT	3	3104; 3757; 4595
AquII	GCCGNACNNNNNNNNNNNNNNNNNNNN!	1	3194
AquII	!NNNNNNNNNNNNNNNNNNGTNCGGC	1	785
AquIII	GAGGAGNNNNNNNNNNNNNNNNNNNN!	2	1338; 2623
AquIII	!NNNNNNNNNNNNNNNNNNCTCCTC	0	
AquIV	GRGGAAGNNNNNNNNNNNNNNNNNNNN!	0	
AquIV	!NNNNNNNNNNNNNNNNNNCTCCYC	1	3365
ArsI	GACNNNNNTTYGNNNNNNNNNNNN!	0	
ArsI	!NNNNNNCRAANNNNNNNGTC	0	
ArsI	CRAANNNNNNGTCNNNNNNNNNNNN!	0	
ArsI	!NNNNNNNNGACNNNNNNNTTYG	0	
AscI	GG!CGCGCC	0	
AseI	AT!TAAT	1	7
Asi256I	G!ATC	23	586; 1125; 1151; 1331; 1431; 1440; 1453; 2633; 2637; 2656; 2967; 3045; 3126; 3135; 3213; 3589; 3605; 3964; 3976; 4054; 4062; 4073; 4148
AsiGI	A!CCGGT	1	600
AsiSI	GCGAT!CGC	0	
AspI	GACN!NNGTC	1	2913
Asp700I	GAANN!NNTTC	0	
Asp718I	G!GTACC	1	1415
AspA2I	C!CTAGG	2	2617; 3632
AspEI	GACNNN!NNGTC	0	
AspLEI	GCG!C	23	597; 1084; 1291; 2061; 2069; 2095; 2117; 2126; 2139; 2170; 2789; 2797; 2861; 2898; 3164; 3424; 3600; 3686; 4089; 4198; 4372; 4472; 4539
AspS9I	G!GNCC	15	83; 276; 760; 1003; 1095; 1116; 1200; 1360; 1424; 1902; 3311; 3756; 3802; 3860; 3893
AssI	AGT!ACT	0	
AsuII	TT!CGAA	1	3477
AsuC2I	CC!SGG	8	836; 1184; 1364; 1428; 2799; 2959; 3572; 4336
AsuHPI	GGTGANNNNNNNNN!	6	376; 627; 996; 1306; 3866; 3982
AsuHPI	!NNNNNNNTCACC	3	885; 1912; 2973
AsuNHI	G!CTAGC	1	591
AvaI	C!YCGRG	1	1426
AvaII	G!GWCC	3	1200; 3311; 3756
AviII	TGC!GCA	1	2897
AvrII	C!CTAGG	2	2617; 3632

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AxyI	CC!TNAGG	3	869; 2275; 3907
BaeI	ACNNNGTAYCNNNNNNNNNNNN!	0	
BaeI	!NNNNNNNGRTACNNNNNGT	0	
BaeI	GRTACNNNNGTNNNNNNNNNNNN!	0	
BaeI	!NNNNNNNNNACNNNNNGTAYC	0	
BaeGI	GKGCMI!C	7	667; 694; 727; 1427; 2741; 2834; 4403
BalI	TGG!CCA	2	1270; 2877
BamHI	G!GATCC	1	1430
BanI	G!GYRCC	7	465; 664; 724; 1415; 1948; 2794; 2829
BanII	GRGCY!C	4	1427; 1986; 3160; 3870
BanIII	AT!CGAT	1	2635
BarI	GAAGNNNNNTACNNNNNNNNNN!	0	
BarI	!NNNNNNNGTANNNNNNCTTC	0	
BarI	GTANNNNNCTTCNNNNNNNNNN!	0	
BarI	!NNNNNNNGAAGNNNNNTAC	0	
BasI	CCANNNN!NTGG	1	1209
BauI	C!ACGAG	3	1255; 3513; 4540
BauI	C!TCGTG	2	1105; 3387
BbeI	GGCGC!C	1	2798
Bbr7I	GAAGACNNNNNN!	1	916
Bbr7I	!NNNNNNNNNGTCTTC	0	
BbrPI	CAC!GTG	0	
BbsI	GAAGACNN!	1	911
BbsI	!NNNNNGTCTTC	0	
BbuI	GCATG!C	3	2365; 2437; 3200
BbvI	GCAGCNNNNNNN!	8	821; 1263; 1583; 2868; 2910; 3431; 3884; 4384
BbvI	!NNNNNNNNNNNGCTGC	8	940; 1354; 2077; 2742; 2926; 3019; 4085; 4291
Bbv12I	GWGCW!C	5	694; 1391; 2908; 3098; 4403
BbvCI	CC!TCAGC	0	
BbvCI	GC!TGAGG	0	
BccI	CCATCNNNN!	4	1925; 2489; 3015; 3517
BccI	!NNNNNGATGG	4	1291; 1893; 2673; 3101
BceAI	ACGGCNNNNNNNNNN!	6	822; 966; 1017; 1083; 3221; 3708
BceAI	!NNNNNNNNNNNGCCGT	3	1936; 2754; 4213
Bcefl	ACGGCNNNNNNNNNN!	6	822; 966; 1017; 1083; 3221; 3708
Bcefl	!NNNNNNNNNNNGCCGT	3	1937; 2755; 4214
BcgI	CGANNNNNNTGCNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNGCANNNNNNTCG	0	
BcgI	GCANNNNNNTCGNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNCGANNNNNNTGC	0	
BciVI	GTATCCNNNNN!	3	2224; 3014; 4515
BciVI	!NNNNNGGATAC	0	
BclI	T!GATCA	1	1452
BcnI	CC!SGG	8	836; 1184; 1364; 1428; 2799; 2959; 3572; 4336
BcuI	A!CTAGT	0	
BdaI	TGANNNNNNTCANNNNNNNNNN!	2	1475; 4648
BdaI	!NNNNNNNNNTGANNNNNNNTCA	2	1441; 4614
BfaI	C!TAG	8	592; 1443; 1644; 2062; 2618; 3633; 3967; 4220
BfiI	ACTGGGNNNNN!	1	2744
BfiI	!NNNCCCAGT	2	289; 2496
BfmI	C!TRYAG	4	1404; 2130; 4257; 4448
BfoI	RGCGC!Y	6	598; 1292; 2062; 2070; 2798; 4473
BfrI	C!TTAAG	0	
BfuI	GTATCCNNNNN!	3	2224; 3014; 4515
BfuI	!NNNNNGGATAC	0	
BfuAI	ACCTGCNNNN!	2	3063; 3513
BfuAI	!NNNNNNNGCAGGT	1	2682
BfuCI	!GATC	23	585; 1124; 1150; 1330; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
BglI	GCCNNNN!NGGC	5	90; 212; 283; 1079; 2570
BglII	A!GATCT	1	1330

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BisI	GC!NGC	35	759; 810; 954; 1071; 1252; 1368; 1377; 1572; 2091; 2113; 2127; 2565; 2704; 2756; 2767; 2857; 2862; 2899; 2940; 3027; 3030; 3033; 3269; 3365; 3406; 3420; 3534; 3873; 3888; 4099; 4305; 4308; 4373; 4516; 4671
BlnI	C!CTAGG	2	2617; 3632
BlpI	GC!TNAGC	0	
BlsI	GCN!GC	35	760; 811; 955; 1072; 1253; 1369; 1378; 1573; 2092; 2114; 2128; 2566; 2705; 2757; 2768; 2858; 2863; 2900; 2941; 3028; 3031; 3034; 3270; 3366; 3407; 3421; 3535; 3874; 3889; 4100; 4306; 4309; 4374; 4517; 4672
BmcAI	AGT!ACT	0	
Bme18I	G!GWCC	3	1200; 3311; 3756
Bme1390I	CC!NGG	23	90; 283; 787; 836; 931; 946; 1075; 1184; 1364; 1428; 2331; 2386; 2403; 2799; 2959; 3182; 3572; 3761; 3864; 4336; 4554; 4567; 4688
BmeRI	GACNNN!NNGTC	0	
BmeT110I	C!YCGRG	1	1426
BmgBI	CAC!GTC	0	
BmgBI	GAC!GTG	0	
BmgT120I	GG!NCC	15	84; 277; 761; 1004; 1096; 1117; 1201; 1361; 1425; 1903; 3312; 3757; 3803; 3861; 3894
BmiI	GGN!NCC	22	467; 666; 726; 1117; 1320; 1362; 1417; 1425; 1432; 1950; 1971; 1983; 2174; 2335; 2407; 2796; 2831; 3679; 3758; 3803; 4646; 4685
BmrI	ACTGGGNNNNN!	1	2744
BmrI	!NNNNCCCAGT	2	289; 2496
BmrFI	CC!NGG	23	90; 283; 787; 836; 931; 946; 1075; 1184; 1364; 1428; 2331; 2386; 2403; 2799; 2959; 3182; 3572; 3761; 3864; 4336; 4554; 4567; 4688
BmsI	GCATCNNNNN!	7	848; 1611; 2374; 2446; 3094; 3158; 3433
BmsI	!NNNNNNNNNGATGC	7	357; 1001; 1169; 2753; 3008; 3224; 4616
BmtI	GCTAG!C	1	595
BmuI	ACTGGGNNNNN!	1	2744
BmuI	!NNNNCCCAGT	2	289; 2496
BoxI	GACNN!NNGTC	1	1243
BpiI	GAAGACNN!	1	911
BpiI	!NNNNNGTCTTC	0	
BpI	GAGNNNNNCTCNNNNNNNNNNNN!	2	2584; 3483
BpI	!NNNNNNNGAGNNNNNNCTC	2	2552; 3451
BpmI	CTGGAGNNNNNNNNNNNNNNNN!	1	3635
BpmI	!NNNNNNNNNNNNNNNCTCCAG	2	928; 3578
Bpu10I	CC!TNAGC	0	
Bpu10I	GC!TNAGG	0	
Bpu14I	TT!CGAA	1	3477
Bpu1102I	GC!TNAGC	0	
BpuAI	GAAGACNN!	1	911
BpuAI	!NNNNNGTCTTC	0	
BpuEI	CTTGAGNNNNNNNNNNNNNNNN!	3	1156; 4089; 4628
BpuEI	!NNNNNNNNNNNNNCTCAAG	3	1159; 3171; 4330
BpuMI	CC!SGG	8	836; 1184; 1364; 1428; 2799; 2959; 3572; 4336
BpvUI	CGAT!CG	0	
BsaI	GGTCTCN!	0	
BsaI	!NNNNNGAGACC	3	1132; 1231; 3784
Bsa29I	AT!CGAT	1	2635
BsaAI	YAC!GTR	3	340; 1911; 3099
BsaBI	GATNN!NNATC	2	1457; 2654
BsaHI	GR!CGYC	8	122; 175; 258; 444; 1187; 2795; 3497; 3576
BsaJI	C!CNNGG	21	360; 611; 698; 929; 1362; 1419; 1426; 2329; 2401; 2524; 2559; 2568; 2617; 2958; 3227; 3632; 3759; 3760; 3862; 3863; 4553
BsaMI	GAATGCN!	1	1546
BsaMI	G!CATTC	1	1639
BsaWI	W!CCGGW	7	600; 1321; 1436; 2826; 3670; 4360; 4507
BsaXI	ACNNNNNCTCCNNNNNNNNNN!	1	1875
BsaXI	!NNNNNNNGGAGNNNNNNGT	0	
BsaXI	GGAGNNNNNGTNNNNNNNNNN!	0	
BsaXI	!NNNNNNNNNACNNNNNNCTCC	1	1845

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BsbI	CAACACNNNNNNNNNNNNNNNNNNNN!	0	
BsbI	!NNNNNNNNNNNNNNNNNNNGTGTG	2	1796; 3703
Bsc4I	CCNNNN!NNGG	20	49; 721; 1000; 1066; 1209; 1807; 2133; 2525; 2776; 3320; 3601; 3633; 3765; 3800; 3850; 3882; 4235; 4514; 4680; 4698
BscAI	GCATCNNNN!	7	847; 1610; 2373; 2445; 3093; 3157; 3432
BscAI	!NNNNNNGATGC	7	360; 1004; 1172; 2756; 3011; 3227; 4619
Bse1I	ACTGGN!	5	1214; 1287; 2739; 2940; 4186
Bse1I	C!CAGT	5	295; 1824; 2502; 4298; 4311
Bse8I	GATNN!NNATC	2	1457; 2654
Bse21I	CC!TNAGG	3	869; 2275; 3907
Bse118I	R!CCGGY	5	600; 2012; 3114; 3295; 3578
BseAI	T!CCGGA	1	1321
BseBI	CC!WGG	15	90; 283; 787; 931; 946; 1075; 2331; 2386; 2403; 3182; 3761; 3864; 4554; 4567; 4688
BseCI	AT!CGAT	1	2635
BseDI	C!CNNGG	21	360; 611; 698; 929; 1362; 1419; 1426; 2329; 2401; 2524; 2559; 2568; 2617; 2958; 3227; 3632; 3759; 3760; 3862; 3863; 4553
Bse3DI	GCAATGNN!	1	3028
Bse3DI	!CATTGC	0	
BseGI	GGATGNN!	4	2655; 3112; 3137; 3591
BseGI	!CATCC	4	694; 782; 839; 2481
BseJI	GATNN!NNATC	2	1457; 2654
BseLI	CCNNNN!NNGG	20	49; 721; 1000; 1066; 1209; 1807; 2133; 2525; 2776; 3320; 3601; 3633; 3765; 3800; 3850; 3882; 4235; 4514; 4680; 4698
BseMI	GCAATGNN!	1	3028
BseMI	!CATTGC	0	
BseMII	CTCAGNNNNNNNNNN!	2	1341; 3921
BseMII	!NNNNNNNNCTGAG	7	860; 1386; 2266; 2568; 3449; 4021; 4430
BseNI	ACTGGN!	5	1214; 1287; 2739; 2940; 4186
BseNI	C!CAGT	5	295; 1824; 2502; 4298; 4311
BsePI	G!CGCGC	0	
BseRI	GAGGAGNNNNNNNNNN!	2	1328; 2613
BseRI	!NNNNNNNNCTCCTC	0	
BseSI	GKGCMI C	7	667; 694; 727; 1427; 2741; 2834; 4403
BseXI	GCAGCNNNNNNNN!	8	821; 1263; 1583; 2868; 2910; 3431; 3884; 4384
BseXI	!NNNNNNNNNNNGCTGC	8	940; 1354; 2077; 2742; 2926; 3019; 4085; 4291
BseX3I	C!GGCCG	1	2701
BseYI	C!CCAGC	4	993; 2338; 2410; 4409
BseYI	G!CTGGG	2	1031; 3299
BsgI	GTGCAGNNNNNNNNNNNNNN!	0	
BsgI	!NNNNNNNNNNNNNNCTGCAC	0	
Bsh1236I	CG!CG	16	60; 1421; 1683; 1719; 2095; 2115; 2139; 2170; 2861; 3162; 3600; 3684; 3747; 3816; 4089; 4670
Bsh1285I	CGRY!CG	3	605; 2704; 4379
BshFI	GG!CC	29	84; 277; 761; 1004; 1039; 1073; 1096; 1118; 1228; 1270; 1361; 1425; 1761; 1903; 2558; 2564; 2573; 2616; 2703; 2877; 3268; 3295; 3804; 3861; 3894; 4239; 4673; 4691; 4702
BshNI	G!GYRCC	7	465; 664; 724; 1415; 1948; 2794; 2829
BshTI	A!CCGGT	1	600
BshVI	AT!CGAT	1	2635
BsiEI	CGRY!CG	3	605; 2704; 4379
BsiHKAI	GWGCW!C	5	694; 1391; 2908; 3098; 4403
BsiHKCI	C!YCGRG	1	1426
BsiSI	C!CGG	23	601; 835; 1184; 1322; 1364; 1427; 1437; 2013; 2700; 2777; 2799; 2827; 2958; 3048; 3115; 3296; 3571; 3579; 3671; 4145; 4335; 4361; 4508
BsiWI	C!GTACG	0	
BsII	CCNNNN!NNGG	20	49; 721; 1000; 1066; 1209; 1807; 2133; 2525; 2776; 3320; 3601; 3633; 3765; 3800; 3850; 3882; 4235; 4514; 4680; 4698
BsIFI	GGGACNNNNNNNNNN!	6	175; 326; 494; 2946; 3478; 3587
BsIFI	!NNNNNNNNNNNNNGTCCC	4	2311; 2383; 2447; 3742
BsmI	GAATGCN!	1	1546
BsmI	G!CATTC	1	1639
BsmAI	GTCTCN!	1	434
BsmAI	!NNNNNGAGAC	7	1042; 1132; 1231; 2219; 2637; 3656; 3784
BsmBI	CGTCTCN!	0	

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BsmBI	!NNNNNGAGACG	1	1042
BsmFI	GGGACNNNNNNNNNN!	6	175; 326; 494; 2946; 3478; 3587
BsmFI	!NNNNNNNNNNNNNGTCCC	4	2311; 2383; 2447; 3742
BsnI	GG!CC	29	84; 277; 761; 1004; 1039; 1073; 1096; 1118; 1228; 1270; 1361; 1425; 1761; 1903; 2558; 2564; 2573; 2616; 2703; 2877; 3268; 3295; 3804; 3861; 3894; 4239; 4673; 4691; 4702
Bso31I	GGTCTCN!	0	
Bso31I	!NNNNNGAGACG	3	1132; 1231; 3784
BsoBI	C!YCGRG	1	1426
Bsp13I	T!CCGGA	1	1321
Bsp19I	C!CATGG	4	360; 611; 2524; 3227
Bsp24I	GACNNNNNTGGNNNNNNNNNN!	2	289; 3598
Bsp24I	!NNNNNNCCANNNNNGTC	2	4019; 4197
Bsp24I	CCANNNNNGTCNNNNNNNNNN!	2	4051; 4229
Bsp24I	!NNNNNNNGACNNNNNTGG	2	257; 3566
Bsp68I	TCG!CGA	0	
Bsp119I	TT!CGAA	1	3477
Bsp120I	G!GGCCC	1	1423
Bsp143I	!GATC	23	585; 1124; 1150; 1330; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
Bsp1286I	GDGCH!C	13	667; 694; 727; 1391; 1427; 1986; 2741; 2834; 2908; 3098; 3160; 3870; 4403
Bsp1407I	T!GTACA	1	653
Bsp1720I	GC!TNAGC	0	
BspACI	C!CGC	35	58; 86; 98; 112; 279; 507; 589; 923; 1061; 1163; 1419; 2110; 2113; 2127; 2217; 2465; 2477; 2486; 2498; 2508; 2519; 2565; 2704; 2767; 3269; 3314; 3380; 3406; 3531; 3534; 3682; 3814; 4121; 4265; 4761
BspACI	G!CGG	27	370; 403; 528; 758; 1070; 1112; 1421; 2055; 2082; 2170; 2280; 2861; 2925; 3026; 3029; 3309; 3364; 3462; 3600; 3747; 3887; 4130; 4375; 4496; 4515; 4642; 4670
BspCNI	CTCAGNNNNNNNN!	2	1340; 3920
BspCNI	!NNNNNNCTGAG	7	861; 1387; 2267; 2569; 3450; 4022; 4431
BspDI	AT!CGAT	1	2635
BspD6I	GACTCNNNN!	5	418; 1333; 1868; 3474; 4351
BspD6I	!NNNNNGAGTC	3	883; 1831; 2263
BspEI	T!CCGGA	1	1321
BspFNI	CG!CG	16	60; 1421; 1683; 1719; 2095; 2115; 2139; 2170; 2861; 3162; 3600; 3684; 3747; 3816; 4089; 4670
BspHI	T!CATGA	2	2221; 3993
BspLI	GGN!NCC	22	467; 666; 726; 1117; 1320; 1362; 1417; 1425; 1432; 1950; 1971; 1983; 2174; 2335; 2407; 2796; 2831; 3679; 3758; 3803; 4646; 4685
BspMI	ACCTGCNNNN!	2	3063; 3513
BspMI	!NNNNNNNGCAGGT	1	2682
BspOI	GCTAG!C	1	595
BspPI	GGATCNNNN!	9	1438; 1447; 2663; 2974; 3220; 3612; 3971; 4069; 4155
BspPI	!NNNNNGATCC	7	580; 1145; 1425; 3039; 3583; 3970; 4067
BspQI	GCTCTCN!	0	
BspQI	!NNNNGAAGAGC	2	3139; 3349
BspTI	C!TTAAG	0	
BspT104I	TT!CGAA	1	3477
BspT107I	G!GYRCC	7	465; 664; 724; 1415; 1948; 2794; 2829
BspTNI	GGTCTCN!	0	
BspTNI	!NNNNNGAGACC	3	1132; 1231; 3784
BsrI	ACTGGN!	5	1214; 1287; 2739; 2940; 4186
BsrI	C!CAGT	5	295; 1824; 2502; 4298; 4311
BsrBI	CCG!CTC	2	2219; 3408
BsrBI	GAG!CGG	2	2055; 3462
BsrDI	GCAATGNN!	1	3028
BsrDI	!CATTGC	0	
BsrFI	R!CCGGY	5	600; 2012; 3114; 3295; 3578
BsrGI	T!GTACA	1	653
BsrSI	ACTGGN!	5	1214; 1287; 2739; 2940; 4186
BsrSI	C!CAGT	5	295; 1824; 2502; 4298; 4311

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BssAI	R!CCGGY	5	600; 2012; 3114; 3295; 3578
BssECI	C!CNNGG	21	360; 611; 698; 929; 1362; 1419; 1426; 2329; 2401; 2524; 2559; 2568; 2617; 2958; 3227; 3632; 3759; 3760; 3862; 3863; 4553
BssHII	G!CGCGC	0	
BssKI	!CCNGG	23	88; 281; 785; 834; 929; 944; 1073; 1182; 1362; 1426; 2329; 2384; 2401; 2797; 2957; 3180; 3570; 3759; 3862; 4334; 4552; 4565; 4686
BssMI	!GATC	23	585; 1124; 1150; 1330; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
BssNI	GR!CGYC	8	122; 175; 258; 444; 1187; 2795; 3497; 3576
BssNAI	GTA!TAC	0	
BssSI	C!ACGAG	3	1255; 3513; 4540
BssSI	C!TCGTG	2	1105; 3387
BssT1I	C!CWVGG	6	360; 611; 2524; 2617; 3227; 3632
Bst6I	CTCTTCN!	0	
Bst6I	!NNNNGAAGAG	3	2262; 3139; 3349
Bst98I	C!TTAAG	0	
Bst1107I	GTA!TAC	0	
BstACI	GR!CGYC	8	122; 175; 258; 444; 1187; 2795; 3497; 3576
BstAFI	C!TTAAG	0	
BstAPI	GCANNNN!NTGC	4	1376; 2362; 2434; 3896
BstAUI	T!GTACA	1	653
BstBI	TT!CGAA	1	3477
Bst2BI	C!ACGAG	3	1255; 3513; 4540
Bst2BI	C!TCGTG	2	1105; 3387
BstBAI	YAC!GTR	3	340; 1911; 3099
Bst4CI	ACN!GT	15	76; 198; 269; 543; 581; 669; 1415; 1886; 3175; 3291; 3399; 3722; 4213; 4683; 4754
BstC8I	GCN!NGC	32	86; 279; 593; 622; 712; 916; 1423; 2014; 2057; 2071; 2344; 2363; 2416; 2435; 2689; 2875; 3094; 3160; 3166; 3194; 3198; 3239; 3243; 3297; 3580; 3767; 3814; 3870; 3892; 4103; 4663; 4700
BstDEI	C!TNAG	10	869; 1327; 1334; 1395; 2275; 2577; 3458; 3907; 4030; 4439
BstDSI	C!CRYGG	5	360; 611; 1419; 2524; 3227
BstEII	G!GTNACC	0	
BstENI	CCTNN!NNNAGG	0	
BstF5I	GGATGNN!	4	2655; 3112; 3137; 3591
BstF5I	!CATCC	4	694; 782; 839; 2481
BstFNI	CG!CG	16	60; 1421; 1683; 1719; 2095; 2115; 2139; 2170; 2861; 3162; 3600; 3684; 3747; 3816; 4089; 4670
BstH2I	RGCGC!Y	6	598; 1292; 2062; 2070; 2798; 4473
BstHHI	GCG!C	23	597; 1084; 1291; 2061; 2069; 2095; 2117; 2126; 2139; 2170; 2789; 2797; 2861; 2898; 3164; 3424; 3600; 3686; 4089; 4198; 4372; 4472; 4539
BstKTI	GAT!C	23	588; 1127; 1153; 1333; 1433; 1442; 1455; 2635; 2639; 2658; 2969; 3047; 3128; 3137; 3215; 3591; 3607; 3966; 3978; 4056; 4064; 4075; 4150
BstMAI	GTCTCN!	1	434
BstMAI	!NNNNGAGAC	7	1042; 1132; 1231; 2219; 2637; 3656; 3784
BstMBI	!GATC	23	585; 1124; 1150; 1330; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
BstMCI	CGRY!CG	3	605; 2704; 4379
BstMWI	GCNNNNN!NNGC	28	90; 212; 244; 283; 376; 400; 648; 1079; 1367; 2022; 2052; 2079; 2121; 2362; 2434; 2485; 2564; 2786; 2870; 2893; 3032; 3155; 3238; 3505; 3692; 3896; 4095; 4667
BstNI	CC!WGG	15	90; 283; 787; 931; 946; 1075; 2331; 2386; 2403; 3182; 3761; 3864; 4554; 4567; 4688
BstNSI	RCATG!Y	6	642; 1088; 2365; 2437; 3200; 4717
BstOI	CC!WGG	15	90; 283; 787; 931; 946; 1075; 2331; 2386; 2403; 3182; 3761; 3864; 4554; 4567; 4688
BstPI	G!GTNACC	0	
BstPAI	GACNN!NNGTC	1	1243
BstSCI	!CCNGG	23	88; 281; 785; 834; 929; 944; 1073; 1182; 1362; 1426; 2329; 2384; 2401; 2797; 2957; 3180; 3570; 3759; 3862; 4334; 4552; 4565; 4686

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BstSFI	C!TRYAG	4	1404; 2130; 4257; 4448
BstSLI	GKGC!C	7	667; 694; 727; 1427; 2741; 2834; 4403
BstSNI	TAC!GTA	1	340
BstUI	CG!CG	16	60; 1421; 1683; 1719; 2095; 2115; 2139; 2170; 2861; 3162; 3600; 3684; 3747; 3816; 4089; 4670
Bst2UI	CC!WGG	15	90; 283; 787; 931; 946; 1075; 2331; 2386; 2403; 3182; 3761; 3864; 4554; 4567; 4688
BstV1I	GCAGC!NNNNNNNN!	8	821; 1263; 1583; 2868; 2910; 3431; 3884; 4384
BstV1I	!NNNNNNNNNNNGCTGC	8	940; 1354; 2077; 2742; 2926; 3019; 4085; 4291
BstV2I	GAAGACNN!	1	911
BstV2I	!NNNNNNGTCTTC	0	
BstXI	CCANN!NNN!NTGG	0	
BstX2I	R!GATCY	12	585; 1150; 1330; 1430; 1439; 2966; 3212; 3604; 3963; 3975; 4061; 4072
BstYI	R!GATCY	12	585; 1150; 1330; 1430; 1439; 2966; 3212; 3604; 3963; 3975; 4061; 4072
BstZI	C!GGCCG	1	2701
BstZ17I	GTA!TAC	0	
BsuI	GTATCCNNNNNN!	3	2224; 3014; 4515
BsuI	!NNNNNGGATAC	0	
Bsu15I	AT!CGAT	1	2635
Bsu36I	CC!TNAGG	3	869; 2275; 3907
BsuRI	GG!CC	29	84; 277; 761; 1004; 1039; 1073; 1096; 1118; 1228; 1270; 1361; 1425; 1761; 1903; 2558; 2564; 2573; 2616; 2703; 2877; 3268; 3295; 3804; 3861; 3894; 4239; 4673; 4691; 4702
BsuTUI	AT!CGAT	1	2635
BtgI	C!CRYGG	5	360; 611; 1419; 2524; 3227
BtgZI	GCGATGNNNNNNNNNN!	2	1912; 3247
BtgZI	!NNNNNNNNNNNNNNNNCATCGC	3	334; 3066; 3410
BthCI	GCNG!C	35	761; 812; 956; 1073; 1254; 1370; 1379; 1574; 2093; 2115; 2129; 2567; 2706; 2758; 2769; 2859; 2864; 2901; 2942; 3029; 3032; 3035; 3271; 3367; 3408; 3422; 3536; 3875; 3890; 4101; 4307; 4310; 4375; 4518; 4673
BtrI	CAC!GTC	0	
BtrI	GAC!GTG	0	
BtsI	GCAGTGNN!	0	
BtsI	!CACTGC	1	1634
BtsCI	GGATGNN!	4	2655; 3112; 3137; 3591
BtsCI	!CATCC	4	694; 782; 839; 2481
BtuMI	TCG!CGA	0	
BveI	ACCTGCNNNN!	2	3063; 3513
BveI	!NNNNNNNNNGCAGGT	1	2682
Cac8I	GCN!NGC	32	86; 279; 593; 622; 712; 916; 1423; 2014; 2057; 2071; 2344; 2363; 2416; 2435; 2689; 2875; 3094; 3160; 3166; 3194; 3198; 3239; 3243; 3297; 3580; 3767; 3814; 3870; 3892; 4103; 4663; 4700
CaiI	CAGNNN!CTG	2	3896; 4304
CciI	T!CATGA	2	2221; 3993
CciNI	GC!GGCCGC	0	
CdiI	CATC!G	5	352; 3084; 3089; 3287; 3428
CdiI	C!GATG	4	1052; 1233; 1898; 3233
CdpI	GCGGAGNNNNNNNNNNNNNNNNNNNNNN!	1	4667
CdpI	!NNNNNNNNNNNNNNNNNNNNCTCCGC	3	486; 2456; 2498
CelII	GC!TNAGC	0	
CfoI	GCG!C	23	597; 1084; 1291; 2061; 2069; 2095; 2117; 2126; 2139; 2170; 2789; 2797; 2861; 2898; 3164; 3424; 3600; 3686; 4089; 4198; 4372; 4472; 4539
CfrI	Y!GGCCR	5	1268; 2701; 2875; 3266; 3293
Cfr9I	C!CCGGG	1	1426
Cfr10I	R!CCGGY	5	600; 2012; 3114; 3295; 3578
Cfr13I	G!GNCC	15	83; 276; 760; 1003; 1095; 1116; 1200; 1360; 1424; 1902; 3311; 3756; 3802; 3860; 3893
Cfr42I	CCG!GG	1	1422
ChaI	GATC!	23	589; 1128; 1154; 1334; 1434; 1443; 1456; 2636; 2640; 2659; 2970; 3048; 3129; 3138; 3216; 3592; 3608; 3967; 3979; 4057; 4065; 4076; 4151
CjeI	CCANNNNNNGTNNNNNNNNNNNNNNNN!	5	706; 2612; 4052; 4152; 4230



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
CjeI	!NNNNNNNNNACNNNNNTGG	7	64; 257; 2279; 2374; 3566; 4116; 4671
CjeI	ACNNNNNTGGNNNNNNNNNNNN!	7	98; 291; 2313; 2408; 3600; 4150; 4705
CjeI	!NNNNNNNNCCANNNNNGT	5	672; 2578; 4018; 4118; 4196
CjePI	CCANNNNNTCANNNNNNNNNN!	2	4052; 4230
CjePI	!NNNNNNNGANNNNNNNTGG	3	257; 3566; 4165
CjePI	GANNNNNTGGNNNNNNNNNN!	3	290; 3599; 4198
CjePI	!NNNNNNCCANNNNNNNTC	2	4019; 4197
Clal	AT!CGAT	1	2635
CpoI	CG!GWCCG	1	3311
CseI	GACGCNNNN!	3	526; 3505; 3584
CseI	!NNNNNNNNNGCGTC	4	1176; 2128; 4023; 4601
CsiI	A!CCWGGT	1	2384
CspI	CG!GWCCG	1	3311
Csp6I	G!TAC	11	218; 243; 298; 331; 382; 539; 654; 804; 1056; 1416; 3100
Csp45I	TT!CGAA	1	3477
CspAI	A!CCGGT	1	600
CspCI	CAANNNNNGTGGNNNNNNNNNN!	1	411
CspCI	!NNNNNNNNCCACNNNNNTTG	0	
CspCI	CCACNNNNNTTGNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNNCAANNNNNGTGG	1	376
CstMI	AAGGAGNNNNNNNNNNNNNNNN!	4	656; 1247; 2075; 3684
CstMI	!NNNNNNNNNNNNNNNNCTCCTT	0	
CviAII	C!ATG	25	301; 361; 612; 639; 645; 657; 735; 801; 881; 1085; 1092; 1371; 2222; 2362; 2434; 2525; 2666; 3011; 3197; 3228; 3254; 3610; 3994; 4714; 4765
CviJI	RG!CY	96	42; 84; 93; 277; 566; 624; 651; 714; 761; 790; 797; 875; 941; 953; 997; 1004; 1031; 1039; 1073; 1096; 1104; 1118; 1228; 1264; 1270; 1338; 1361; 1367; 1376; 1425; 1464; 1574; 1741; 1761; 1903; 1984; 1998; 2012; 2293; 2334; 2406; 2529; 2558; 2564; 2573; 2581; 2604; 2616; 2622; 2703; 2720; 2728; 2755; 2780; 2864; 2873; 2877; 2901; 2939; 3015; 3032; 3051; 3114; 3158; 3168; 3185; 3268; 3295; 3299; 3336; 3359; 3375; 3555; 3582; 3643; 3765; 3804; 3861; 3868; 3875; 3894; 3905; 4156; 4185; 4228; 4239; 4304; 4383; 4408; 4413; 4459; 4549; 4647; 4673; 4691; 4702
CviKI-1	RG!CY	96	42; 84; 93; 277; 566; 624; 651; 714; 761; 790; 797; 875; 941; 953; 997; 1004; 1031; 1039; 1073; 1096; 1104; 1118; 1228; 1264; 1270; 1338; 1361; 1367; 1376; 1425; 1464; 1574; 1741; 1761; 1903; 1984; 1998; 2012; 2293; 2334; 2406; 2529; 2558; 2564; 2573; 2581; 2604; 2616; 2622; 2703; 2720; 2728; 2755; 2780; 2864; 2873; 2877; 2901; 2939; 3015; 3032; 3051; 3114; 3158; 3168; 3185; 3268; 3295; 3299; 3336; 3359; 3375; 3555; 3582; 3643; 3765; 3804; 3861; 3868; 3875; 3894; 3905; 4156; 4185; 4228; 4239; 4304; 4383; 4408; 4413; 4459; 4549; 4647; 4673; 4691; 4702
CviQI	G!TAC	11	218; 243; 298; 331; 382; 539; 654; 804; 1056; 1416; 3100
DdeI	C!TNAG	10	869; 1327; 1334; 1395; 2275; 2577; 3458; 3907; 4030; 4439
DinI	GGC!GCC	1	2796
DpnI	GA!TC	23	587; 1126; 1152; 1332; 1432; 1441; 1454; 2634; 2638; 2657; 2968; 3046; 3127; 3136; 3214; 3590; 3606; 3965; 3977; 4055; 4063; 4074; 4149
DpnII	!GATC	23	585; 1124; 1150; 1330; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
DraI	TTT!AAA	3	1497; 3939; 3958
DraII	RG!GNCCY	1	3893
DraIII	CACNN!GTG	2	1260; 1911
DraRI	CAAGNACNNNNNNNNNNNNNNNN!	3	266; 851; 4275
DraRI	!NNNNNNNNNNNNNNNNNGTNCCTG	0	
DrdI	GACNNN!NNGTC	3	1866; 2822; 4611
DrdIV	TACGACNNNNNNNNNNNNNNNN!	0	
DrdIV	!NNNNNNNNNNNNNNNNNGTCGTA	1	476
DriI	GACNN!NNGTC	0	
DseDI	GACNNN!NNGTC	3	1866; 2822; 4611
EaeI	Y!GGCCR	5	1268; 2701; 2875; 3266; 3293
EagI	C!GGCCG	1	2701
Eam1104I	CTCTCN!	0	
Eam1104I	!NNNNGAAGAG	3	2262; 3139; 3349

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Eam1105I	GACNNN!NNGTC	0	
EarI	CTCTTCN!	0	
EarI	!NNNNGAAGAG	3	2262; 3139; 3349
EciI	GGCGANNNNNNNNNN!	4	2295; 3324; 4511; 4657
EciI	!NNNNNNNNNTCCGCC	4	496; 2466; 2487; 2508
Ecl136II	GAG!CTC	0	
EclXI	C!GGCCG	1	2701
Eco24I	GRGCY!C	4	1427; 1986; 3160; 3870
Eco31I	GGTCTCN!	0	
Eco31I	!NNNNNGAGACC	3	1132; 1231; 3784
Eco32I	GAT!ATC	0	
Eco47I	G!GWCC	3	1200; 3311; 3756
Eco47III	AGC!GCT	1	596
Eco52I	C!GGCCG	1	2701
Eco57I	CTGAAGNNNNNNNNNNNNNN!	3	1120; 2941; 3373
Eco57I	!NNNNNNNNNNNNNNCTTCAG	1	4171
Eco72I	CAC!GTG	0	
Eco81I	CC!TNAGG	3	869; 2275; 3907
Eco88I	C!YCGRG	1	1426
Eco91I	G!GTNACC	0	
Eco105I	TAC!GTA	1	340
Eco130I	C!CWWGG	6	360; 611; 2524; 2617; 3227; 3632
Eco147I	AGG!CCT	2	1039; 2616
EcoHI	!CCSGG	8	834; 1182; 1362; 1426; 2797; 2957; 3570; 4334
EcoICRI	GAG!CTC	0	
Eco57MI	CTGRAGNNNNNNNNNNNNNN!	4	1120; 2941; 3373; 3635
Eco57MI	!NNNNNNNNNNNNNNCTYCAG	3	928; 3578; 4171
EcoNI	CCTNN!NNNAGG	0	
Eco065I	G!GTNACC	0	
Eco0109I	RG!GNCCY	1	3893
EcoRI	G!AATTC	1	1399
EcoRII	!CCWGG	15	88; 281; 785; 929; 944; 1073; 2329; 2384; 2401; 3180; 3759; 3862; 4552; 4565; 4686
EcoRV	GAT!ATC	0	
EcoT14I	C!CWWGG	6	360; 611; 2524; 2617; 3227; 3632
EcoT22I	ATGCA!T	3	2367; 2439; 4770
EcoT38I	GRGCY!C	4	1427; 1986; 3160; 3870
Eco53kl	GAG!CTC	0	
EgeI	GGC!GCC	1	2796
EheI	GGC!GCC	1	2796
ErhI	C!CWWGG	6	360; 611; 2524; 2617; 3227; 3632
EsaBC3I	TC!GA	15	753; 780; 1248; 1411; 1945; 2636; 2909; 3065; 3089; 3125; 3287; 3478; 3523; 3778; 4616
Esp3I	CGTCTCN!	0	
Esp3I	!NNNNNGAGACG	1	1042
FaeI	CATG!	25	304; 364; 615; 642; 648; 660; 738; 804; 884; 1088; 1095; 1374; 2225; 2365; 2437; 2528; 2669; 3014; 3200; 3231; 3257; 3613; 3997; 4717; 4768
Fail	YA!TR	63	39; 46; 50; 67; 138; 146; 234; 236; 291; 302; 310; 362; 555; 557; 613; 640; 646; 658; 736; 802; 882; 900; 1086; 1093; 1146; 1372; 1457; 1467; 1533; 1578; 1783; 2211; 2223; 2354; 2363; 2426; 2435; 2459; 2526; 2550; 2667; 2731; 3012; 3037; 3198; 3229; 3255; 3327; 3543; 3611; 3689; 3741; 3902; 3919; 3921; 3923; 3995; 4273; 4462; 4578; 4651; 4715; 4766
FalI	AAGNNNNCTTNNNNNNNNNNNN!	2	879; 3135
FalI	!NNNNNNNNAAGNNNNNCTT	2	847; 3103
FaqI	GGGACNNNNNNNNNN!	6	175; 326; 494; 2946; 3478; 3587
FaqI	!NNNNNNNNNNNNNGTCCC	4	2311; 2383; 2447; 3742
FatI	!CATG	25	300; 360; 611; 638; 644; 656; 734; 800; 880; 1084; 1091; 1370; 2221; 2361; 2433; 2524; 2665; 3010; 3196; 3227; 3253; 3609; 3993; 4713; 4764
FauI	CCCGCNNNN!	10	93; 119; 286; 1068; 1170; 2117; 2472; 2493; 3689; 3821
FauI	!NNNNNNGCGGG	7	1105; 1414; 2048; 2918; 3455; 3593; 3740
FauNDI	CA!TATG	1	234
FbaI	T!GATCA	1	1452
FblI	GT!MKAC	2	1190; 1410

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
FmuI	GGNC!C	15	86; 279; 763; 1006; 1098; 1119; 1203; 1363; 1427; 1905; 3314; 3759; 3805; 3863; 3896
Fnu4HI	GC!NGC	35	759; 810; 954; 1071; 1252; 1368; 1377; 1572; 2091; 2113; 2127; 2565; 2704; 2756; 2767; 2857; 2862; 2899; 2940; 3027; 3030; 3033; 3269; 3365; 3406; 3420; 3534; 3873; 3888; 4099; 4305; 4308; 4373; 4516; 4671
FokI	GGATGNNNNNNNNN!	4	2662; 3119; 3144; 3598
FokI	!NNNNNNNNNNNNNNCATCC	4	681; 769; 826; 2468
FriOI	GRGCY!C	4	1427; 1986; 3160; 3870
FseI	GGCCGG!CC	0	
FspI	TGC!GCA	1	2897
FspAI	RTGC!GCAY	0	
FspBI	C!TAG	8	592; 1443; 1644; 2062; 2618; 3633; 3967; 4220
FspEI	CCNNNNNNNNNNNN!	160	56; 71; 98; 114; 128; 129; 156; 182; 220; 252; 291; 307; 333; 373; 450; 451; 482; 501; 520; 593; 614; 656; 681; 711; 728; 742; 775; 789; 807; 831; 845; 876; 909; 936; 951; 970; 1006; 1053; 1072; 1087; 1110; 1132; 1147; 1167; 1186; 1216; 1242; 1284; 1335; 1357; 1375; 1407; 1432; 1447; 1478; 1517; 1531; 1672; 1767; 1791; 1814; 1837; 1855; 1877; 1898; 1917; 1936; 1965; 1986; 2000; 2026; 2114; 2140; 2189; 2230; 2248; 2287; 2303; 2341; 2398; 2413; 2470; 2490; 2504; 2521; 2535; 2572; 2587; 2630; 2713; 2780; 2811; 2831; 2846; 2891; 2905; 2971; 2985; 3004; 3020; 3061; 3081; 3128; 3178; 3194; 3214; 3239; 3259; 3282; 3309; 3327; 3353; 3393; 3419; 3443; 3499; 3513; 3541; 3584; 3605; 3640; 3684; 3772; 3796; 3818; 3838; 3854; 3875; 3889; 3908; 3992; 4012; 4040; 4055; 4089; 4131; 4158; 4173; 4218; 4242; 4256; 4278; 4304; 4324; 4348; 4374; 4422; 4441; 4460; 4486; 4521; 4566; 4596; 4610; 4661; 4675; 4700; 4716; 4737; 4766
FspEI	!NNNNNNNNNNNNNNNGG	130	8; 35; 59; 144; 166; 197; 252; 295; 347; 375; 400; 435; 463; 509; 529; 552; 586; 616; 643; 685; 706; 730; 772; 791; 820; 856; 893; 916; 935; 958; 986; 1013; 1052; 1078; 1097; 1169; 1195; 1243; 1268; 1286; 1307; 1343; 1398; 1422; 1466; 1566; 1635; 1743; 1792; 1814; 1842; 1878; 1923; 1952; 1988; 2007; 2035; 2055; 2118; 2141; 2249; 2281; 2299; 2328; 2371; 2400; 2511; 2540; 2583; 2604; 2632; 2665; 2685; 2710; 2737; 2762; 2784; 2812; 2838; 2859; 2910; 2931; 2949; 2997; 3033; 3089; 3114; 3138; 3167; 3190; 3214; 3240; 3262; 3281; 3306; 3346; 3382; 3447; 3532; 3556; 3585; 3619; 3640; 3660; 3705; 3732; 3751; 3784; 3836; 3867; 3894; 3946; 4044; 4115; 4160; 4221; 4286; 4320; 4346; 4364; 4400; 4470; 4493; 4515; 4539; 4572; 4620; 4655; 4673; 4730
Fsp4HI	GC!NGC	35	759; 810; 954; 1071; 1252; 1368; 1377; 1572; 2091; 2113; 2127; 2565; 2704; 2756; 2767; 2857; 2862; 2899; 2940; 3027; 3030; 3033; 3269; 3365; 3406; 3420; 3534; 3873; 3888; 4099; 4305; 4308; 4373; 4516; 4671
GdiII	C!GGCCR	1	2701
GdiII	Y!GGCCG	3	2701; 3266; 3293
GlaI	GC!GC	23	596; 1083; 1290; 2060; 2068; 2094; 2116; 2125; 2138; 2169; 2788; 2796; 2860; 2897; 3163; 3423; 3599; 3685; 4088; 4197; 4371; 4471; 4538
GluI	GC!NGC	35	759; 810; 954; 1071; 1252; 1368; 1377; 1572; 2091; 2113; 2127; 2565; 2704; 2756; 2767; 2857; 2862; 2899; 2940; 3027; 3030; 3033; 3269; 3365; 3406; 3420; 3534; 3873; 3888; 4099; 4305; 4308; 4373; 4516; 4671
GsaI	CCCAG!C	4	997; 2342; 2414; 4413
GsaI	GCTGG!G	2	1035; 3303
GsuI	CTGGAGNNNNNNNNNNNNNN!	1	3635
GsuI	!NNNNNNNNNNNNNNCTCCAG	2	928; 3578
HaeI	WGG!CCW	7	1039; 1270; 2616; 2877; 4239; 4691; 4702
HaeII	RGCG!Y	6	598; 1292; 2062; 2070; 2798; 4473
HaeIII	GG!CC	29	84; 277; 761; 1004; 1039; 1073; 1096; 1118; 1228; 1270; 1361; 1425; 1761; 1903; 2558; 2564; 2573; 2616; 2703; 2877; 3268; 3295; 3804; 3861; 3894; 4239; 4673; 4691; 4702
HaeIV	GAYNNNNNNRTCNNNNNNNNNNNN!	2	1470; 2991
HaeIV	!NNNNNNNNNGAYNNNNNNRTC	2	1436; 2957
HaeIV	GAYNNNNNNRTCNNNNNNNNNNNN!	2	1469; 2990
HaeIV	!NNNNNNNGAYNNNNNNRTC	2	1438; 2959

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
HapII	C!CGG	23	601; 835; 1184; 1322; 1364; 1427; 1437; 2013; 2700; 2777; 2799; 2827; 2958; 3048; 3115; 3296; 3571; 3579; 3671; 4145; 4335; 4361; 4508
HgaI	GACGCNNNNN!	3	526; 3505; 3584
HgaI	!NNNNNNNNNGCGTC	4	1176; 2128; 4023; 4601
HhaI	GCG!C	23	597; 1084; 1291; 2061; 2069; 2095; 2117; 2126; 2139; 2170; 2789; 2797; 2861; 2898; 3164; 3424; 3600; 3686; 4089; 4198; 4372; 4472; 4539
HinI	GR!CGYC	8	122; 175; 258; 444; 1187; 2795; 3497; 3576
HinIII	CATG!	25	304; 364; 615; 642; 648; 660; 738; 804; 884; 1088; 1095; 1374; 2225; 2365; 2437; 2528; 2669; 3014; 3200; 3231; 3257; 3613; 3997; 4717; 4768
Hin4I	GAYNNNNVTCNNNNNNNNNN!	2	1469; 2990
Hin4I	!NNNNNNNGABNNNNRTC	3	1437; 2958; 2988
Hin4I	GABNNNNRTCNNNNNNNNNN!	3	1469; 2990; 3020
Hin4I	!NNNNNNNGAYNNNNVTC	2	1437; 2958
Hin6I	G!CGC	23	595; 1082; 1289; 2059; 2067; 2093; 2115; 2124; 2137; 2168; 2787; 2795; 2859; 2896; 3162; 3422; 3598; 3684; 4087; 4196; 4370; 4470; 4537
HinPII	G!CGC	23	595; 1082; 1289; 2059; 2067; 2093; 2115; 2124; 2137; 2168; 2787; 2795; 2859; 2896; 3162; 3422; 3598; 3684; 4087; 4196; 4370; 4470; 4537
HincII	GTY!RAC	2	1411; 1558
HindII	GTY!RAC	2	1411; 1558
HindIII	A!AGCTT	0	
HinfI	G!ANTC	15	410; 740; 890; 1217; 1325; 1838; 1860; 2270; 3280; 3414; 3466; 3524; 3561; 4343; 4739
HpaI	GTT!AAC	1	1558
HpaII	C!CGG	23	601; 835; 1184; 1322; 1364; 1427; 1437; 2013; 2700; 2777; 2799; 2827; 2958; 3048; 3115; 3296; 3571; 3579; 3671; 4145; 4335; 4361; 4508
HphI	GGTGANNNNNN!	6	376; 627; 996; 1306; 3866; 3982
HphI	!NNNNNNNTCACC	3	885; 1912; 2973
Hpy8I	GTN!NAC	14	201; 539; 577; 672; 692; 987; 1191; 1200; 1411; 1558; 1842; 1859; 1914; 4401
Hpy99I	CGWCG!	11	754; 1234; 1249; 1415; 2885; 2913; 3207; 3222; 3499; 3884; 4617
Hpy166II	GTN!NAC	14	201; 539; 577; 672; 692; 987; 1191; 1200; 1411; 1558; 1842; 1859; 1914; 4401
Hpy188I	TCN!GA	13	585; 699; 1330; 1969; 2578; 2762; 3106; 3459; 3560; 4039; 4173; 4526; 4604
Hpy188III	TC!NNGA	24	1176; 1322; 1348; 1394; 1443; 2222; 2274; 2587; 2640; 2813; 3129; 3138; 3221; 3277; 3321; 3411; 3444; 3513; 3994; 4068; 4151; 4249; 4347; 4481
HpyAV	CCTCNNNNN!	6	780; 828; 873; 3440; 3547; 4226
HpyAV	!NNNNNGAAGG	9	700; 1072; 2028; 2923; 3652; 3668; 3851; 4168; 4478
HpyCH4III	ACN!GT	15	76; 198; 269; 543; 581; 669; 1415; 1886; 3175; 3291; 3399; 3722; 4213; 4683; 4754
HpyCH4IV	A!CGT	17	122; 134; 175; 258; 339; 444; 968; 1196; 1244; 1855; 1867; 1910; 2020; 2911; 3098; 3879; 4012
HpyCH4V	TG!CA	22	692; 1014; 1130; 1370; 1379; 1406; 1544; 1571; 1639; 2356; 2365; 2428; 2437; 2552; 2628; 2687; 2846; 3021; 3035; 4105; 4401; 4768
HpyF3I	C!TNAG	10	869; 1327; 1334; 1395; 2275; 2577; 3458; 3907; 4030; 4439
HpyF10VI	GCNNNN!NNGC	28	90; 212; 244; 283; 376; 400; 648; 1079; 1367; 2022; 2052; 2079; 2121; 2362; 2434; 2485; 2564; 2786; 2870; 2893; 3032; 3155; 3238; 3505; 3692; 3896; 4095; 4667
Hsp92I	GR!CGYC	8	122; 175; 258; 444; 1187; 2795; 3497; 3576
Hsp92II	CATG!	25	304; 364; 615; 642; 648; 660; 738; 804; 884; 1088; 1095; 1374; 2225; 2365; 2437; 2528; 2669; 3014; 3200; 3231; 3257; 3613; 3997; 4717; 4768
HspAI	G!CGC	23	595; 1082; 1289; 2059; 2067; 2093; 2115; 2124; 2137; 2168; 2787; 2795; 2859; 2896; 3162; 3422; 3598; 3684; 4087; 4196; 4370; 4470; 4537
KasI	G!GCGCC	1	2794
KfII	GG!GWCCC	0	
KpnI	GGTAC!C	1	1419
Kpn2I	T!CCGGA	1	1321

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
KspI	CCGC!GG	1	1422
Ksp22I	T!GATCA	1	1452
KspAI	GTT!AAC	1	1558
Kzo9I	!GATC	23	585; 1124; 1150; 1330; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
LguI	GCTCTTCN!	0	
LguI	!NNNNGAAGAGC	2	3139; 3349
LpnI	RGC!GCGY	6	596; 1290; 2060; 2068; 2796; 4471
LpnPI	CCDGNNNNNNNNN!	64	102; 295; 614; 742; 799; 848; 881; 943; 958; 1007; 1087; 1111; 1135; 1197; 1284; 1335; 1361; 1377; 1407; 1440; 1532; 1837; 2026; 2249; 2287; 2303; 2343; 2398; 2415; 2515; 2600; 2713; 2790; 2812; 2835; 2971; 2985; 3004; 3061; 3128; 3178; 3194; 3251; 3309; 3518; 3584; 3608; 3684; 3773; 3876; 3909; 4140; 4158; 4304; 4324; 4348; 4374; 4423; 4521; 4566; 4596; 4675; 4700; 4737
LpnPI	!NNNNNNNNNNNNNNCHGG	56	75; 268; 552; 586; 772; 820; 916; 1017; 1060; 1169; 1195; 1268; 1307; 1349; 1412; 1878; 1998; 2055; 2118; 2316; 2328; 2388; 2400; 2632; 2677; 2720; 2762; 2784; 2812; 2859; 2921; 2943; 3033; 3100; 3123; 3167; 3262; 3281; 3306; 3455; 3556; 3599; 3656; 3746; 3849; 3876; 3894; 4130; 4167; 4320; 4346; 4486; 4504; 4539; 4620; 4673
Lsp1109I	GCAGCNNNNNNNN!	8	821; 1263; 1583; 2868; 2910; 3431; 3884; 4384
Lsp1109I	!NNNNNNNNNNNNNGCTGC	8	940; 1354; 2077; 2742; 2926; 3019; 4085; 4291
LweI	GCATCNNNNN!	7	848; 1611; 2374; 2446; 3094; 3158; 3433
LweI	!NNNNNNNNNGATGC	7	357; 1001; 1169; 2753; 3008; 3224; 4616
MabI	A!CCWGGT	1	2384
MaeI	C!TAG	8	592; 1443; 1644; 2062; 2618; 3633; 3967; 4220
MaeII	A!CGT	17	122; 134; 175; 258; 339; 444; 968; 1196; 1244; 1855; 1867; 1910; 2020; 2911; 3098; 3879; 4012
MaeIII	!GTNAC	14	61; 148; 497; 891; 1087; 1583; 2084; 2096; 2915; 3221; 3911; 4177; 4293; 4356
MalI	GA!TC	23	587; 1126; 1152; 1332; 1432; 1441; 1454; 2634; 2638; 2657; 2968; 3046; 3127; 3136; 3214; 3590; 3606; 3965; 3977; 4055; 4063; 4074; 4149
MaqI	CRTTGACNNNNNNNNNNNNNNNNNNNNNN!	4	144; 197; 466; 540
MaqI	!NNNNNNNNNNNNNNNNNNNNNGTCAAYG	3	157; 240; 426
MauBI	CG!CGCGCG	0	
MbiI	CCG!CTC	2	2219; 3408
MbiI	GAG!CGG	2	2055; 3462
MboI	!GATC	23	585; 1124; 1150; 1330; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
MboII	GAAGANNNNNNNN!	7	916; 1029; 2051; 2279; 3156; 3366; 3985
MboII	!NNNNNNNTCTTC	4	3446; 3613; 3813; 4056
McaTI	GCGC!GC	0	
MfeI	C!AATTG	1	1545
MflI	R!GATCY	12	585; 1150; 1330; 1430; 1439; 2966; 3212; 3604; 3963; 3975; 4061; 4072
MhlI	GDGCH!C	13	667; 694; 727; 1391; 1427; 1986; 2741; 2834; 2908; 3098; 3160; 3870; 4403
MlsI	TGG!CCA	2	1270; 2877
MluI	A!CGCGT	1	1681
MluNI	TGG!CCA	2	1270; 2877
MlyI	GAGTCNNNNN!	3	899; 1847; 2279
MlyI	!NNNNNGACTC	5	404; 1319; 1854; 3460; 4337
Mly113I	GG!CGCC	1	2795
MmeI	TCCRACNNNNNNNNNNNNNNNNNNNNNN!	1	1888
MmeI	!NNNNNNNNNNNNNNNNNNNGTYGGA	2	4320; 4504
MnlI	CCTCNNNNNNN!	14	773; 842; 952; 967; 1050; 1183; 1355; 1514; 2578; 3396; 3602; 3916; 4286; 4610
MnlI	!NNNNNNGAGG	24	541; 654; 693; 714; 747; 864; 973; 1029; 1218; 1251; 1294; 1306; 1474; 1939; 2270; 2548; 2591; 2606; 2646; 2710; 2846; 3203; 3633; 4536
Mph1103I	ATGCA!T	3	2367; 2439; 4770
MreI	CG!CCGGCG	0	
MroI	T!CCGGA	1	1321
MroNI	G!CCGGC	3	2012; 3295; 3578

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
MroXI	GAANN!NNTTC	0	
MscI	TGG!CCA	2	1270; 2877
MseI	T!TAA	17	7; 629; 854; 1496; 1557; 1678; 1699; 1710; 1722; 1733; 1750; 1848; 2119; 3938; 3952; 3957; 4009
MslI	CAYNN!NNRTG	4	365; 613; 643; 3232
MspI	C!CGG	23	601; 835; 1184; 1322; 1364; 1427; 1437; 2013; 2700; 2777; 2799; 2827; 2958; 3048; 3115; 3296; 3571; 3579; 3671; 4145; 4335; 4361; 4508
Msp20I	TGG!CCA	2	1270; 2877
MspA1I	CMG!CKG	6	1063; 1421; 2293; 2901; 4130; 4375
MspCI	C!TTAAG	0	
MspJI	CNNRNNNNNNNNN!	242	36; 50; 71; 97; 113; 127; 147; 167; 219; 236; 251; 290; 306; 319; 332; 352; 373; 407; 424; 449; 481; 500; 523; 548; 574; 596; 613; 633; 651; 669; 699; 717; 732; 747; 765; 798; 813; 837; 856; 880; 893; 909; 927; 941; 957; 970; 984; 1005; 1018; 1039; 1058; 1072; 1086; 1104; 1117; 1134; 1147; 1161; 1174; 1188; 1209; 1222; 1241; 1260; 1283; 1304; 1334; 1351; 1375; 1392; 1406; 1432; 1449; 1463; 1478; 1502; 1519; 1532; 1573; 1587; 1600; 1618; 1656; 1671; 1689; 1730; 1754; 1774; 1792; 1813; 1836; 1868; 1883; 1905; 1923; 1936; 1957; 1974; 1987; 2000; 2016; 2029; 2059; 2074; 2099; 2117; 2130; 2145; 2169; 2183; 2207; 2232; 2248; 2286; 2302; 2341; 2355; 2369; 2397; 2413; 2427; 2441; 2470; 2483; 2504; 2513; 2535; 2565; 2581; 2599; 2629; 2652; 2676; 2700; 2719; 2747; 2773; 2789; 2802; 2825; 2839; 2859; 2872; 2886; 2905; 2919; 2932; 2948; 2963; 2976; 2992; 3007; 3023; 3048; 3067; 3083; 3096; 3109; 3127; 3141; 3155; 3171; 3193; 3209; 3228; 3250; 3266; 3289; 3308; 3322; 3338; 3352; 3372; 3388; 3401; 3423; 3456; 3470; 3490; 3503; 3517; 3571; 3584; 3607; 3620; 3639; 3656; 3683; 3719; 3752; 3771; 3796; 3817; 3844; 3857; 3874; 3888; 3903; 3919; 3979; 4004; 4020; 4042; 4055; 4069; 4100; 4114; 4139; 4157; 4172; 4185; 4204; 4217; 4232; 4261; 4280; 4298; 4323; 4338; 4357; 4373; 4392; 4410; 4426; 4440; 4459; 4486; 4509; 4531; 4550; 4565; 4578; 4595; 4615; 4642; 4655; 4674; 4699; 4722; 4736; 4749; 4766
MspJI	!NNNNNNNNNNNNYNG	199	8; 35; 59; 76; 97; 123; 145; 168; 197; 221; 269; 281; 310; 330; 347; 377; 400; 437; 465; 492; 511; 531; 553; 574; 598; 616; 643; 673; 697; 715; 739; 758; 780; 811; 830; 854; 887; 916; 958; 980; 1013; 1033; 1060; 1078; 1095; 1113; 1141; 1162; 1183; 1207; 1229; 1252; 1269; 1307; 1334; 1357; 1380; 1406; 1423; 1447; 1476; 1505; 1547; 1630; 1668; 1692; 1715; 1744; 1788; 1810; 1842; 1878; 1895; 1916; 1953; 1973; 1990; 2007; 2042; 2060; 2078; 2095; 2119; 2141; 2168; 2196; 2222; 2260; 2281; 2298; 2316; 2339; 2360; 2388; 2411; 2432; 2450; 2471; 2488; 2511; 2535; 2555; 2573; 2595; 2626; 2648; 2674; 2693; 2710; 2738; 2757; 2776; 2794; 2812; 2833; 2855; 2879; 2912; 2932; 2950; 2971; 2997; 3024; 3041; 3058; 3075; 3101; 3123; 3145; 3163; 3183; 3202; 3224; 3262; 3282; 3306; 3326; 3346; 3373; 3397; 3430; 3449; 3477; 3499; 3528; 3556; 3581; 3600; 3619; 3640; 3657; 3674; 3705; 3732; 3752; 3775; 3795; 3832; 3849; 3868; 3894; 3914; 3953; 3980; 3999; 4017; 4054; 4072; 4113; 4131; 4157; 4174; 4206; 4235; 4263; 4284; 4307; 4326; 4347; 4365; 4382; 4400; 4426; 4447; 4467; 4487; 4505; 4526; 4552; 4569; 4588; 4607; 4636; 4655; 4673; 4692; 4710; 4728; 4751
MspR9I	CC!NGG	23	90; 283; 787; 836; 931; 946; 1075; 1184; 1364; 1428; 2331; 2386; 2403; 2799; 2959; 3182; 3572; 3761; 3864; 4336; 4554; 4567; 4688
MssI	GTTT!AAAC	0	
MunI	C!AATTG	1	1545
MvaI	CC!WGG	15	90; 283; 787; 931; 946; 1075; 2331; 2386; 2403; 3182; 3761; 3864; 4554; 4567; 4688
Mva1269I	GAATGCN!	1	1546
Mva1269I	G!CATTC	1	1639
MvnI	CG!CG	16	60; 1421; 1683; 1719; 2095; 2115; 2139; 2170; 2861; 3162; 3600; 3684; 3747; 3816; 4089; 4670
MvrI	CGAT!CG	0	
MwoI	GCNNNNN!NNGC	28	90; 212; 244; 283; 376; 400; 648; 1079; 1367; 2022; 2052; 2079; 2121; 2362; 2434; 2485; 2564; 2786; 2870; 2893; 3032; 3155; 3238; 3505; 3692; 3896; 4095; 4667
NaeI	GCC!GGC	3	2014; 3297; 3580

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
NarI	GG!CGCC	1	2795
NciI	CC!SGG	8	836; 1184; 1364; 1428; 2799; 2959; 3572; 4336
NcoI	C!CATGG	4	360; 611; 2524; 3227
NdeI	CA!TATG	1	234
NdeII	!GATC	23	585; 1124; 1150; 1330; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
NgoAVIII	GACNNNNNTGANNNNNNNNNNNN!	1	280
NgoAVIII	!NNNNNNNNNNNTCANNNNNGTC	1	731
NgoAVIII	TCANNNNNGTCNNNNNNNNNNNN!	1	767
NgoAVIII	!NNNNNNNNNNNGACNNNNNTGA	1	244
NgoMIV	G!CCGGC	3	2012; 3295; 3578
NheI	G!CTAGC	1	591
NlaIII	CATG!	25	304; 364; 615; 642; 648; 660; 738; 804; 884; 1088; 1095; 1374; 2225; 2365; 2437; 2528; 2669; 3014; 3200; 3231; 3257; 3613; 3997; 4717; 4768
NlaIV	GGN!NCC	22	467; 666; 726; 1117; 1320; 1362; 1417; 1425; 1432; 1950; 1971; 1983; 2174; 2335; 2407; 2796; 2831; 3679; 3758; 3803; 4646; 4685
NlaCI	CATCACNNNNNNNNNNNNNNNNNN!	3	1627; 1942; 3534
NlaCI	!NNNNNNNNNNNNNNNNNGTGATG	4	347; 991; 1277; 4606
Nli3877I	CYCGR!G	1	1430
NmeAIII	GCCGAGNNNNNNNNNNNNNNNNNN!	2	2584; 3020
NmeAIII	!NNNNNNNNNNNNNNNNNNCTCGGC	2	1007; 2549
NmeDI	RCCGGYNNNNNNNN!	5	612; 2024; 3126; 3307; 3590
NmeDI	!NNNNNNNNNNNNRCCGGY	5	587; 1999; 3101; 3282; 3565
NmuCI	!GTSAC	5	891; 1087; 2084; 2915; 3221
NotI	GC!GGCCGC	0	
NruI	TCG!CGA	0	
NsbI	TGC!GCA	1	2897
NsiI	ATGCA!T	3	2367; 2439; 4770
NspI	RCATG!Y	6	642; 1088; 2365; 2437; 3200; 4717
NspV	TT!CGAA	1	3477
OliI	CACNN!NNGTG	1	613
PabI	GTA!C	11	220; 245; 300; 333; 384; 541; 656; 806; 1058; 1418; 3102
PacI	TTAAT!TAA	0	
PaeI	GCATG!C	3	2365; 2437; 3200
PaeR7I	C!TCGAG	0	
PagI	T!CATGA	2	2221; 3993
PalAI	GG!CGCGCC	0	
PasI	CC!CWGGG	2	3760; 3863
PauI	G!CGCGC	0	
PceI	AGG!CCT	2	1039; 2616
PciI	A!CATGT	1	4713
PciSI	GCTCTTCN!	0	
PciSI	!NNNNGAAGAGC	2	3139; 3349
PcsI	WCGNNNN!NNNCGW	7	1253; 3089; 3166; 3409; 3483; 3876; 4394
PctI	GAATGCN!	1	1546
PctI	G!CATTC	1	1639
PdiI	GCC!GGC	3	2014; 3297; 3580
PdmI	GAANN!NNTTC	0	
PfeI	G!AWTC	7	740; 1217; 3280; 3414; 3524; 3561; 4739
Pfi23II	C!GTACG	0	
PfifI	GACN!NNGTC	1	2913
PfimiI	CCANNNN!NTGG	1	1209
PfoI	T!CCNGGA	2	944; 3570
PhoI	GG!CC	29	84; 277; 761; 1004; 1039; 1073; 1096; 1118; 1228; 1270; 1361; 1425; 1761; 1903; 2558; 2564; 2573; 2616; 2703; 2877; 3268; 3295; 3804; 3861; 3894; 4239; 4673; 4691; 4702
PinAI	A!CCGGT	1	600
PlaDI	CATCAGNNNNNNNNNNNNNNNNNN!	1	3176
PlaDI	!NNNNNNNNNNNNNNNNNNCTGATG	3	1329; 2741; 2996
PleI	GAGTCNNNN!	3	898; 1846; 2278
PleI	!NNNNGACTC	5	404; 1319; 1854; 3460; 4337
Ple19I	CGAT!CG	0	
PmaCI	CAC!GTG	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
PmeI	GTTT!AAAC	0	
PmlI	CAC!GTG	0	
PpiI	GAACNNNNNCTCNNNNNNNNNNNNNN!	1	1877
PpiI	!NNNNNNNNNGAGNNNNNGTTC	1	4007
PpiI	GAGNNNNNGTTCNNNNNNNNNNNN!	1	4039
PpiI	!NNNNNNNGAACNNNNNCTC	1	1845
PpsI	GAGTCNNNN!	3	898; 1846; 2278
PpsI	!NNNNNGACTC	5	404; 1319; 1854; 3460; 4337
Ppu10I	A!TGCAT	3	2363; 2435; 4766
Ppu21I	YAC!GTR	3	340; 1911; 3099
PpuMI	RG!GWCCY	0	
PscI	A!CATGT	1	4713
PshAI	GACNN!NNGTC	1	1243
PshBI	AT!TAAT	1	7
PsiI	TTA!TAA	2	1578; 1783
Psp03I	GGWC!C	3	1203; 3314; 3759
Psp5II	RG!GWCCY	0	
Psp6I	!CCWGG	15	88; 281; 785; 929; 944; 1073; 2329; 2384; 2401; 3180; 3759; 3862; 4552; 4565; 4686
Psp1406I	AA!CGTT	0	
Psp124BI	GAGCT!C	0	
PspCI	CAC!GTG	0	
PspEI	G!GTNACC	0	
PspGI	!CCWGG	15	88; 281; 785; 929; 944; 1073; 2329; 2384; 2401; 3180; 3759; 3862; 4552; 4565; 4686
PspLI	C!GTACG	0	
PspN4I	GGN!NCC	22	467; 666; 726; 1117; 1320; 1362; 1417; 1425; 1432; 1950; 1971; 1983; 2174; 2335; 2407; 2796; 2831; 3679; 3758; 3803; 4646; 4685
PspOMI	G!GGCCC	1	1423
PspOMII	CGCCARNNNNNNNNNNNNNNNNNNN!	3	125; 2525; 3524
PspOMII	!NNNNNNNNNNNNNNNNNYTGGGCG	1	2927
PspPI	G!GNCC	15	83; 276; 760; 1003; 1095; 1116; 1200; 1360; 1424; 1902; 3311; 3756; 3802; 3860; 3893
PspPPI	RG!GWCCY	0	
PspPRI	CCYAGNNNNNNNNNNNNNNNN!	3	2348; 2420; 3926
PspPRI	!NNNNNNNNNNNNNCTGRGG	3	855; 2261; 3456
PspXI	VC!TCGAGB	0	
PsrI	GAACNNNNNTACNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGTANNNNNNGTTC	0	
PsrI	GTANNNNNNGTTCNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGAACNNNNNNNTAC	0	
PssI	RGGNC!CY	1	3896
PstI	CTGCA!G	1	1408
PstNI	CAGNNN!CTG	2	3896; 4304
PsuI	R!GATCY	12	585; 1150; 1330; 1430; 1439; 2966; 3212; 3604; 3963; 3975; 4061; 4072
Psyl	GACN!NNGTC	1	2913
PteI	G!CGCGC	0	
PvuI	CGAT!CG	0	
PvuII	CAG!CTG	2	2293; 2901
RcaI	T!CATGA	2	2221; 3993
RceI	CATCGACNNNNNNNNNNNNNNNNNN!	1	3310
RceI	!NNNNNNNNNNNNNNNNNGTCGATG	0	
RgaI	GCGAT!CGC	0	
RigI	GGCCGG!CC	0	
RleAI	CCCACANNNNNNNNNNNN!	1	1524
RleAI	!NNNNNNNNNTGTGGG	0	
RpaBI	CCCGCAGNNNNNNNNNNNNNNNNNN!	0	
RpaBI	!NNNNNNNNNNNNNNNNNCTGCGGG	0	
RpaB5I	CGRGGACNNNNNNNNNNNNNNNNNN!	0	
RpaB5I	!NNNNNNNNNNNNNNNNNGTCCYCG	0	
RruI	TCG!CGA	0	
RsaI	GT!AC	11	219; 244; 299; 332; 383; 540; 655; 805; 1057; 1417; 3101
RsaNI	G!TAC	11	218; 243; 298; 331; 382; 539; 654; 804; 1056; 1416; 3100



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
RseI	CAYNN!NNRTG	4	365; 613; 643; 3232
RsrII	CG!GWCCG	1	3311
Rsr2I	CG!GWCCG	1	3311
SacI	GAGCT!C	0	
SacII	CCGC!GG	1	1422
SalI	G!TCGAC	1	1409
SapI	GCTCTCN!	0	
SapI	!NNNNGAAGAGC	2	3139; 3349
SaqAI	T!TAA	17	7; 629; 854; 1496; 1557; 1678; 1699; 1710; 1722; 1733; 1750; 1848; 2119; 3938; 3952; 3957; 4009
SatI	GC!NGC	35	759; 810; 954; 1071; 1252; 1368; 1377; 1572; 2091; 2113; 2127; 2565; 2704; 2756; 2767; 2857; 2862; 2899; 2940; 3027; 3030; 3033; 3269; 3365; 3406; 3420; 3534; 3873; 3888; 4099; 4305; 4308; 4373; 4516; 4671
Sau96I	G!GNCC	15	83; 276; 760; 1003; 1095; 1116; 1200; 1360; 1424; 1902; 3311; 3756; 3802; 3860; 3893
Sau3AI	!GATC	23	585; 1124; 1150; 1330; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
SbfI	CCTGCA!GG	0	
ScaI	AGT!ACT	0	
SchI	GAGTCNNNNN!	3	899; 1847; 2279
SchI	!NNNNGACTC	5	404; 1319; 1854; 3460; 4337
SciI	CTC!GAG	0	
ScrFI	CC!NGG	23	90; 283; 787; 836; 931; 946; 1075; 1184; 1364; 1428; 2331; 2386; 2403; 2799; 2959; 3182; 3572; 3761; 3864; 4336; 4554; 4567; 4688
SdaI	CCTGCA!GG	0	
SdeAI	CAGRAGNNNNNNNNNNNNNNNNNNNN!	5	1041; 2373; 2445; 2614; 4556
SdeAI	!NNNNNNNNNNNNNNNNNNNNCTYCTG	4	1326; 1372; 2950; 3435
SdeOSI	GACNNNRTGANNNNNNNNNNN!	1	279
SdeOSI	!NNNNNNNNNNTCAYNNNNNGTC	0	
SdeOSI	TCAYNNNNNGTCNNNNNNNNNNNN!	0	
SdeOSI	!NNNNNNNNNNNGACNNNNRTGA	1	245
SduI	GDGCH!C	13	667; 694; 727; 1391; 1427; 1986; 2741; 2834; 2908; 3098; 3160; 3870; 4403
SelI	!CGCG	16	58; 1419; 1681; 1717; 2093; 2113; 2137; 2168; 2859; 3160; 3598; 3682; 3745; 3814; 4087; 4668
SetI	ASST!	69	125; 137; 178; 261; 308; 342; 447; 552; 568; 626; 653; 749; 799; 820; 971; 977; 1106; 1124; 1136; 1175; 1199; 1243; 1247; 1262; 1305; 1311; 1320; 1340; 1378; 1485; 1506; 1515; 1527; 1576; 1743; 1858; 1870; 1913; 1950; 2000; 2023; 2147; 2295; 2390; 2583; 2696; 2824; 2903; 2914; 2986; 3057; 3101; 3361; 3507; 3551; 3882; 3913; 3972; 4015; 4158; 4179; 4278; 4415; 4430; 4449; 4461; 4505; 4551; 4602
SexAI	A!CCWGGT	1	2384
SfaAI	GCGAT!CGC	0	
SfaNI	GCATCNNNNN!	7	848; 1611; 2374; 2446; 3094; 3158; 3433
SfaNI	!NNNNNNNNNGATGC	7	357; 1001; 1169; 2753; 3008; 3224; 4616
SfcI	C!TRYAG	4	1404; 2130; 4257; 4448
SfiI	GGCCNNNN!NGGCC	1	2570
SfoI	GGC!GCC	1	2796
Sfr274I	C!TCGAG	0	
Sfr303I	CCGC!GG	1	1422
SfuI	TT!CGAA	1	3477

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SgeI	CNNGNNNNNNNNNN!	192	6; 36; 71; 97; 123; 223; 236; 252; 290; 307; 336; 373; 407; 426; 491; 548; 579; 604; 624; 651; 669; 699; 723; 741; 756; 798; 813; 837; 856; 880; 893; 921; 942; 957; 984; 1006; 1039; 1059; 1072; 1086; 1104; 1117; 1134; 1147; 1167; 1188; 1209; 1222; 1260; 1283; 1304; 1334; 1360; 1375; 1392; 1406; 1432; 1449; 1502; 1531; 1573; 1656; 1694; 1730; 1814; 1836; 1868; 1905; 1923; 1942; 1957; 1999; 2016; 2033; 2068; 2082; 2099; 2121; 2145; 2169; 2234; 2248; 2286; 2302; 2342; 2355; 2374; 2397; 2414; 2427; 2446; 2476; 2497; 2514; 2537; 2572; 2599; 2630; 2652; 2678; 2700; 2719; 2747; 2783; 2802; 2825; 2839; 2859; 2872; 2886; 2905; 2919; 2938; 2970; 2984; 2997; 3023; 3054; 3067; 3084; 3101; 3115; 3132; 3150; 3165; 3193; 3209; 3228; 3250; 3266; 3289; 3308; 3333; 3352; 3372; 3399; 3423; 3456; 3475; 3503; 3517; 3583; 3607; 3622; 3645; 3666; 3683; 3731; 3758; 3772; 3801; 3825; 3858; 3875; 3895; 3908; 3921; 3979; 4006; 4025; 4055; 4080; 4100; 4114; 4139; 4157; 4194; 4232; 4261; 4289; 4303; 4323; 4338; 4359; 4373; 4392; 4410; 4426; 4466; 4486; 4513; 4531; 4552; 4565; 4578; 4595; 4619; 4642; 4674; 4699; 4726; 4748
SgeI	!NNNNNNNNNNNNCNG	168	10; 45; 71; 97; 197; 226; 264; 281; 310; 347; 381; 400; 465; 522; 553; 578; 598; 625; 643; 673; 697; 715; 739; 772; 811; 830; 854; 895; 916; 958; 980; 1013; 1033; 1060; 1078; 1099; 1121; 1141; 1162; 1183; 1207; 1234; 1257; 1278; 1308; 1334; 1357; 1380; 1406; 1423; 1476; 1505; 1547; 1630; 1668; 1704; 1788; 1810; 1842; 1879; 1897; 1916; 1973; 1990; 2007; 2042; 2060; 2080; 2100; 2119; 2143; 2208; 2260; 2316; 2348; 2371; 2388; 2420; 2450; 2471; 2488; 2511; 2546; 2573; 2604; 2626; 2652; 2674; 2693; 2721; 2757; 2776; 2799; 2820; 2838; 2855; 2879; 2912; 2944; 2971; 2997; 3028; 3058; 3075; 3101; 3124; 3145; 3167; 3187; 3207; 3224; 3263; 3282; 3307; 3326; 3346; 3373; 3397; 3430; 3449; 3477; 3499; 3557; 3581; 3600; 3619; 3640; 3657; 3705; 3732; 3752; 3775; 3799; 3832; 3849; 3869; 3895; 3953; 3980; 3999; 4029; 4054; 4074; 4113; 4131; 4168; 4206; 4235; 4263; 4284; 4312; 4333; 4366; 4384; 4440; 4460; 4487; 4505; 4526; 4552; 4569; 4593; 4616; 4648; 4673; 4700; 4722; 4751
SgfI	GCGAT!CGC	0	
SgrAI	CR!CCGGYG	0	
SgrBI	CCGC!GG	1	1422
SgrDI	CG!TCGACG	0	
SgsI	GG!CGCGCC	0	
SimI	GG!GTC	4	27; 1942; 3729; 4522
SimI	!GACCC	4	106; 3223; 3791; 4039
SinI	G!GWCC	3	1200; 3311; 3756
SlaI	C!TCGAG	0	
SmaI	CCC!GGG	1	1428
SmiI	ATTT!AAAT	0	
SmiMI	CAYNN!NNRTG	4	365; 613; 643; 3232
SmlI	C!TYRAG	6	1135; 1174; 3186; 4068; 4345; 4607
SmoI	C!TYRAG	6	1135; 1174; 3186; 4068; 4345; 4607
SmuI	CCCGNNNN!	10	93; 119; 286; 1068; 1170; 2117; 2472; 2493; 3689; 3821
SmuI	!NNNNNCGCGG	7	1105; 1414; 2048; 2918; 3455; 3593; 3740
SnaBI	TAC!GTA	1	340
SpeI	A!CTAGT	0	
SphI	GCATG!C	3	2365; 2437; 3200
SrfI	GCCC!GGGC	0	
Sse9I	!AATT	11	18; 1399; 1545; 1609; 1687; 1713; 1724; 2371; 2443; 2535; 3953
Sse8387I	CCTGCA!GG	0	
Sse8647I	AG!GWCCCT	0	
SseBI	AGG!CCT	2	1039; 2616
SsiI	C!CGC	35	58; 86; 98; 112; 279; 507; 589; 923; 1061; 1163; 1419; 2110; 2113; 2127; 2217; 2465; 2477; 2486; 2498; 2508; 2519; 2565; 2704; 2767; 3269; 3314; 3380; 3406; 3531; 3534; 3682; 3814; 4121; 4265; 4761
SsiI	G!CGG	27	370; 403; 528; 758; 1070; 1112; 1421; 2055; 2082; 2170; 2280; 2861; 2925; 3026; 3029; 3309; 3364; 3462; 3600; 3747; 3887; 4130; 4375; 4496; 4515; 4642; 4670
SspI	AAT!ATT	2	1703; 2256
SspDI	G!GCGCC	1	2794

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SspD5I	GGTGANNNNNNNN!	6	376; 627; 996; 1306; 3866; 3982
SspD5I	!NNNNNNNNNTCACC	3	884; 1911; 2972
SstI	GAGCT!C	0	
SstII	CCGC!GG	1	1422
SstE37I	CGAAGACNNNNNNNNNNNNNNNNNNNN!	1	929
SstE37I	!NNNNNNNNNNNNNNNNNGTCTTCG	0	
Sth132I	CCCGNNNN!	21	92; 118; 285; 851; 1067; 1169; 1190; 1370; 1433; 1994; 2116; 2471; 2492; 2805; 3208; 3347; 3418; 3688; 3820; 4050; 4488
Sth132I	!NNNNNNNNNCGGG	22	15; 407; 470; 827; 900; 1104; 1413; 1995; 2047; 2148; 2875; 2917; 2950; 3454; 3563; 3592; 3739; 3843; 3874; 4327; 4371; 4579
Sth302II	CC!GG	23	602; 836; 1185; 1323; 1365; 1428; 1438; 2014; 2701; 2778; 2800; 2828; 2959; 3049; 3116; 3297; 3572; 3580; 3672; 4146; 4336; 4362; 4509
StrI	C!TCGAG	0	
StsI	GGATGNNNNNNNNNN!	4	2663; 3120; 3145; 3599
StsI	!NNNNNNNNNNNNNNCATCC	4	680; 768; 825; 2467
StuI	AGG!CCT	2	1039; 2616
StyI	C!CWGG	6	360; 611; 2524; 2617; 3227; 3632
StyD4I	!CCNGG	23	88; 281; 785; 834; 929; 944; 1073; 1182; 1362; 1426; 2329; 2384; 2401; 2797; 2957; 3180; 3570; 3759; 3862; 4334; 4552; 4565; 4686
SwaI	ATTT!AAAT	0	
TaaI	ACN!GT	15	76; 198; 269; 543; 581; 669; 1415; 1886; 3175; 3291; 3399; 3722; 4213; 4683; 4754
TaiI	ACGT!	17	125; 137; 178; 261; 342; 447; 971; 1199; 1247; 1858; 1870; 1913; 2023; 2914; 3101; 3882; 4015
TaqI	T!CGA	15	752; 779; 1247; 1410; 1944; 2635; 2908; 3064; 3088; 3124; 3286; 3477; 3522; 3777; 4615
TaqII	GACCGANNNNNNNNNNN!	3	1815; 2832; 3500
TaqII	!NNNNNNNNNTCGGTC	1	3744
TaqII	CACCCANNNNNNNNNNN!	1	742
TaqII	!NNNNNNNNNTGGGTG	3	172; 2699; 3291
TasI	!AATT	11	18; 1399; 1545; 1609; 1687; 1713; 1724; 2371; 2443; 2535; 3953
TatI	W!GTACW	5	217; 297; 330; 381; 653
TauI	GCSG!C	17	761; 1073; 2115; 2129; 2567; 2706; 2769; 2864; 3029; 3032; 3271; 3367; 3408; 3536; 3890; 4518; 4673
TfiI	G!AWTC	7	740; 1217; 3280; 3414; 3524; 3561; 4739
TliI	C!TCGAG	0	
TruII	T!TAA	17	7; 629; 854; 1496; 1557; 1678; 1699; 1710; 1722; 1733; 1750; 1848; 2119; 3938; 3952; 3957; 4009
Tru9I	T!TAA	17	7; 629; 854; 1496; 1557; 1678; 1699; 1710; 1722; 1733; 1750; 1848; 2119; 3938; 3952; 3957; 4009
TscAI	CASTGNN!	5	1641; 2924; 4034; 4305; 4318
TseI	G!CWGC	18	809; 953; 1251; 1367; 1376; 1571; 2090; 2755; 2856; 2898; 2939; 3032; 3419; 3872; 4098; 4304; 4307; 4372
TsoI	TARCCANNNNNNNNNNN!	2	1767; 2114
TsoI	!NNNNNNNNNTGGYTA	3	778; 1572; 3324
Tsp45I	!GTSAC	5	891; 1087; 2084; 2915; 3221
Tsp509I	!AATT	11	18; 1399; 1545; 1609; 1687; 1713; 1724; 2371; 2443; 2535; 3953
TspDTI	ATGAANNNNNNNNNNN!	4	661; 1553; 2854; 3558
TspDTI	!NNNNNNNNNTTCAT	6	26; 789; 810; 3272; 3728; 3935
TspEI	!AATT	11	18; 1399; 1545; 1609; 1687; 1713; 1724; 2371; 2443; 2535; 3953
TspGWI	ACGGANNNNNNNNNNN!	1	3670
TspGWI	!NNNNNNNNNTCCGT	0	
TspMI	C!CCGGG	1	1426
TspRI	CASTGNN!	5	1641; 2924; 4034; 4305; 4318
TstI	CACNNNNNNNTCCNNNNNNNNNNNN!	0	
TstI	!NNNNNNNGGANNNNNNNNGTG	0	
TstI	GGANNNNNNGTGNNNNNNNNNNNN!	0	
TstI	!NNNNNNNNCACNNNNNNNTCC	0	
Tth111I	GACN!NNGTC	1	2913
Tth111II	CAARCANNNNNNNNNNN!	2	841; 4122
Tth111III	!NNNNNNNNNTGYTTG	3	3230; 4090; 4129

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
UnbI	!GGNCC	15	82; 275; 759; 1002; 1094; 1115; 1199; 1359; 1423; 1901; 3310; 3755; 3801; 3859; 3892
Van9II	CCANNNN!NTGG	1	1209
Vha464I	C!TTAAG	0	
VneI	G!TGCAC	2	690; 4399
VpaK11AI	!GGWCC	3	1199; 3310; 3755
VpaK11BI	G!GWCC	3	1200; 3311; 3756
VspI	AT!TAAT	1	7
XagI	CCTNN!NNNAGG	0	
XapI	R!AATTY	4	1399; 1609; 1713; 1724
XbaI	T!CTAGA	1	1442
XceI	RCATG!Y	6	642; 1088; 2365; 2437; 3200; 4717
XcmI	CCANNNNN!NNNNTGG	0	
XhoI	C!TCGAG	0	
XhoII	R!GATCY	12	585; 1150; 1330; 1430; 1439; 2966; 3212; 3604; 3963; 3975; 4061; 4072
XmaI	C!CCGGG	1	1426
XmaJI	C!CTAGG	2	2617; 3632
XmiI	GT!MKAC	2	1190; 1410
XmnI	GAANN!NNTTC	0	
XspI	C!TAG	8	592; 1443; 1644; 2062; 2618; 3633; 3967; 4220
ZraI	GAC!GTC	4	123; 176; 259; 445
ZrmI	AGT!ACT	0	
Zsp2I	ATGCA!T	3	2367; 2439; 4770