

## pKFP-Red-N vector

### Table of restriction sites

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AanI	TTA!TAA	2	1518; 1723
AarI	CACCTGCNNNN!	1	1205
AarI	!NNNNNNNNGCAGGTG	0	
AasI	GACNNNN!NNGTC	3	1806; 2762; 4551
AatI	AGG!CCT	1	2556
AatII	GACGT!C	4	125; 178; 261; 447
AbsI	CC!TCGAGG	0	
AccI	GT!MKAC	1	640
AccII	CG!CG	17	60; 651; 1142; 1384; 1659; 2035; 2055; 2079; 2110; 2801; 3102; 3540; 3624; 3687; 3756; 4029; 4610
AccIII	T!CCGGA	0	
Acc16I	TGC!GCA	1	2837
Acc36I	ACCTGCNNNN!	3	1198; 3003; 3453
Acc36I	!NNNNNNNNGCAGGT	1	2622
Acc65I	G!GTACC	1	645
AccB1I	G!GYRCC	8	465; 645; 727; 787; 1181; 1888; 2734; 2769
AccB7I	CCANNNN!NTGG	0	
AccBSI	CCG!CTC	3	1214; 2159; 3348
AccBSI	GAG!CGG	3	1378; 1995; 3402
AceIII	CAGCTCNNNNNNN!	1	1691
AceIII	!NNNNNNNNNNGAGCTG	1	552
AciI	C!CGC	43	58; 86; 98; 112; 279; 507; 589; 649; 986; 1058; 1092; 1212; 1226; 1232; 1269; 1325; 1335; 1349; 1382; 2050; 2053; 2067; 2157; 2405; 2417; 2426; 2438; 2448; 2459; 2505; 2644; 2707; 3209; 3254; 3320; 3346; 3471; 3474; 3622; 3754; 4061; 4205; 4701
AciI	G!CGG	29	370; 403; 528; 651; 821; 974; 1142; 1175; 1378; 1995; 2022; 2110; 2220; 2801; 2865; 2966; 2969; 3249; 3304; 3402; 3540; 3687; 3827; 4070; 4315; 4436; 4455; 4582; 4610
AcI	AA!CGTT	0	
AcIWI	GGATCNNNN!	8	668; 2603; 2914; 3160; 3552; 3911; 4009; 4095
AcIWI	!NNNNNGATCC	7	580; 655; 1032; 2979; 3523; 3910; 4007
AcoI	Y!GGCCR	9	738; 1089; 1143; 1176; 1379; 2641; 2815; 3206; 3233
AcsI	R!AATY	4	629; 1549; 1653; 1664
AcuI	CTGAAGNNNNNNNNNNNNNNNN!	4	1183; 1258; 2881; 3313
AcuI	!NNNNNNNNNNNNNNCTTCAG	1	4111
AcvI	CAC!GTG	0	
AcyI	GR!CGYC	8	122; 175; 258; 444; 1346; 2735; 3437; 3516
AdeI	CACNNN!GTG	1	1851
AfaI	GT!AC	13	219; 244; 299; 332; 383; 540; 647; 868; 892; 1027; 1120; 1318; 3041
AfeI	AGC!GCT	1	596
AfiI	CCNNNNN!NNGG	20	49; 783; 1063; 1178; 1260; 1747; 2073; 2465; 2716; 3260; 3541; 3573; 3705; 3740; 3790; 3822; 4175; 4454; 4620; 4638
AfIII	C!TTAAG	1	1617
AfIII	A!CRYGT	2	893; 4653
AgeI	A!CCGGT	1	666
AgsI	TTS!AA	8	711; 750; 918; 2146; 2190; 2200; 2613; 4189
AhdI	GACNNN!NNGTC	0	
AhlI	A!CTAGT	0	
AjiI	CAC!GTC	0	
AjiI	GAC!GTG	0	
AjnI	!CCWGG	17	88; 281; 791; 943; 992; 1004; 1019; 1040; 2269; 2324; 2341; 3120; 3699; 3802; 4492; 4505; 4626
AjuI	GAANNNNNNNTTGGNNNNNNNNNN!	0	
AjuI	!NNNNNNCCAANNNNNNNTTC	0	
AjuI	CCAANNNNNNNTTCNNNNNNNNNN!	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AjuI	!NNNNNNNGAANNNNNNNTTGG	0	
AleI	CACNN!NNGTG	0	
AlfI	GCANNNNNTGCNNNNNNNNNNNN!	2	2309; 2381
AlfI	!NNNNNNNNNNGCANNNNNTGC	2	2275; 2347
AloI	GAACNNNNNTCCNNNNNNNNNNNN!	1	1817
AloI	!NNNNNNNGGANNNNNNGTTC	0	
AloI	GGANNNNNGTTCNNNNNNNNNNNN!	0	
AloI	!NNNNNNNGAACNNNNNTCC	1	1785
AluI	AG!CT	15	566; 618; 624; 1362; 1514; 1681; 1938; 2233; 2521; 2841; 3299; 4096; 4353; 4399; 4489
AluBI	AG!CT	15	566; 618; 624; 1362; 1514; 1681; 1938; 2233; 2521; 2841; 3299; 4096; 4353; 4399; 4489
AlwI	GGATCNNNN!	8	668; 2603; 2914; 3160; 3552; 3911; 4009; 4095
AlwI	!NNNNNGATCC	7	580; 655; 1032; 2979; 3523; 3910; 4007
Alw21I	GWGCW!C	4	620; 2848; 3038; 4343
Alw26I	GTCTCN!	1	434
Alw26I	!NNNNNGAGAC	5	691; 2159; 2577; 3596; 3724
Alw44I	G!TGCAC	1	4339
AlwNI	CAGNNN!CTG	3	1152; 3836; 4244
Ama87I	C!YCGRG	3	613; 656; 931
Aor13HI	T!CCGGA	0	
Aor51HI	AGC!GCT	1	596
ApaI	GGGCC!C	1	657
ApaBI	GCANNNNN!TGC	3	2303; 2375; 3837
ApaLI	G!TGCAC	1	4339
ApeKI	G!CWGC	14	1137; 1511; 2030; 2695; 2796; 2838; 2879; 2972; 3359; 3812; 4038; 4244; 4247; 4312
ApoI	R!AATTY	4	629; 1549; 1653; 1664
ApyPI	ATCGACNNNNNNNNNNNNNNNNNNNN!	1	3250
ApyPI	!NNNNNNNNNNNNNNNNNNGTCGAT	3	3044; 3697; 4535
AquII	GCCGNACNNNNNNNNNNNNNNNNNNNN!	1	3134
AquII	!NNNNNNNNNNNNNNNNNNGTNCGGC	2	848; 878
AquIII	GAGGAGNNNNNNNNNNNNNNNNNNNN!	2	1310; 2563
AquIII	!NNNNNNNNNNNNNNNNNNCTCCTC	0	
AquIV	GRGGAAGNNNNNNNNNNNNNNNNNNNN!	0	
AquIV	!NNNNNNNNNNNNNNNNNCTCCYC	3	909; 1035; 3305
ArsI	GACNNNNNTTYGNNNNNNNNNNNN!	0	
ArsI	!NNNNNNCRAANNNNNNGTC	0	
ArsI	CRAANNNNNNGTCNNNNNNNNNNNN!	0	
ArsI	!NNNNNNNGACNNNNNTTYG	0	
AscI	GG!CGGCC	0	
AseI	AT!TAAT	1	7
Asi256I	G!ATC	25	586; 610; 661; 804; 813; 1038; 1113; 1278; 1393; 2573; 2577; 2596; 2907; 2985; 3066; 3075; 3153; 3529; 3545; 3904; 3916; 3994; 4002; 4013; 4088
AsiGI	A!CCGGT	1	666
AsiSI	GCGAT!CGC	0	
AspI	GACN!NNGTC	1	2853
Asp700I	GAANN!NNTTC	0	
Asp718I	G!GTACC	1	645
AspA2I	C!CTAGG	2	2557; 3572
AspEI	GACNNN!NNGTC	0	
AspLEI	GCG!C	23	597; 953; 1142; 2001; 2009; 2035; 2057; 2066; 2079; 2110; 2729; 2737; 2801; 2838; 3104; 3364; 3540; 3626; 4029; 4138; 4312; 4412; 4479
AspS9I	G!GNCC	15	83; 276; 654; 823; 1066; 1158; 1263; 1332; 1365; 1842; 3251; 3696; 3742; 3800; 3833
AssI	AGT!ACT	0	
AsuII	TT!CGAA	2	627; 3417
AsuC2I	CC!SGG	9	657; 658; 1103; 1172; 1247; 2739; 2899; 3512; 4276
AsuHPI	GGTGANNNNNNNN!	5	376; 822; 1044; 3806; 3922
AsuHPI	!NNNNNNNTCACC	3	933; 1852; 2913
AsuNHI	G!CTAGC	1	591
AvaI	C!YCGRG	3	613; 656; 931
AvaII	G!GWCC	3	1263; 3251; 3696
AviII	TGC!GCA	1	2837

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AvrII	C!CTAGG	2	2557; 3572
AxyI	CC!TNAGG	2	2215; 3847
BaeI	ACNNNGTAYCNNNNNNNNNN!	0	
BaeI	!NNNNNNNGRTACNNNGT	0	
BaeI	GRTACNNNGTNNNNNNNNNN!	0	
BaeI	!NNNNNNNNNACNNNGTAYC	0	
BaeGI	GKGCMI!C	7	657; 730; 790; 1171; 2681; 2774; 4343
BalI	TGG!CCA	1	2817
BamHI	G!GATCC	1	660
BanI	G!GYRCC	8	465; 645; 727; 787; 1181; 1888; 2734; 2769
BanII	GRGCY!C	6	620; 657; 1103; 1926; 3100; 3810
BanIII	AT!CGAT	1	2575
BarI	GAAGNNNNNTACNNNNNNNNNN!	0	
BarI	!NNNNNNNGTANNNNNNCTTC	0	
BarI	GTANNNNNNCTTCNNNNNNNNNN!	0	
BarI	!NNNNNNNGAAGNNNNNTAC	0	
BasI	CCANNNN!NTGG	0	
BauI	C!ACGAG	2	3453; 4480
BauI	C!TCGTG	1	3327
BbeI	GGCGC!C	1	2738
Bbr7I	GAAGACNNNNNN!	0	
Bbr7I	!NNNNNNNNNGTCTTC	0	
BbrPI	CAC!GTG	0	
BbsI	GAAGACNN!	0	
BbsI	!NNNNNGTCTTC	0	
BbuI	GCATG!C	3	2305; 2377; 3140
BbvI	GCAGCNNNNNNN!	6	1523; 2808; 2850; 3371; 3824; 4324
BbvI	!NNNNNNNNNNNGCTGC	7	1124; 2017; 2682; 2866; 2959; 4025; 4231
Bbv12I	GWGCW!C	4	620; 2848; 3038; 4343
BbvCI	CC!TCAGC	0	
BbvCI	GC!TGAGG	0	
BccI	CCATCNNNN!	5	727; 1865; 2429; 2955; 3457
BccI	!NNNNNGATGG	4	1149; 1833; 2613; 3041
BceAI	ACGGCNNNNNNNNNN!	8	753; 885; 987; 1026; 1080; 1146; 3161; 3648
BceAI	!NNNNNNNNNNNGCCGT	4	1312; 1876; 2694; 4153
BceFI	ACGGCNNNNNNNNNN!	8	753; 885; 987; 1026; 1080; 1146; 3161; 3648
BceFI	!NNNNNNNNNNNGCCGT	4	1313; 1877; 2695; 4154
BcgI	CGANNNNNNTGCNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNGCANNNNNTCG	1	762
BcgI	GCANNNNNNTCGNNNNNNNNNN!	1	796
BcgI	!NNNNNNNNNCGANNNNNNTGC	0	
BciVI	GTATCCNNNNN!	3	2164; 2954; 4455
BciVI	!NNNNNGGATAC	0	
BclI	T!GATCA	0	
BcnI	CC!SGG	9	657; 658; 1103; 1172; 1247; 2739; 2899; 3512; 4276
BcuI	A!CTAGT	0	
BdaI	TGANNNNNNTCANNNNNNNNNN!	1	4588
BdaI	!NNNNNNNNNNTGANNNNNNTCA	1	4554
BfaI	C!TAG	8	592; 1390; 1584; 2002; 2558; 3573; 3907; 4160
BfiI	ACTGGGNNNNN!	1	2684
BfiI	!NNNCCCAGT	2	289; 2436
BfmI	C!TRYAG	4	634; 2070; 4197; 4388
BfoI	RGCGC!Y	5	598; 2002; 2010; 2738; 4413
BfrI	C!TTAAG	1	1617
BfuI	GTATCCNNNNN!	3	2164; 2954; 4455
BfuI	!NNNNNGGATAC	0	
BfuAI	ACCTGCNNNN!	3	1198; 3003; 3453
BfuAI	!NNNNNNNGCAGGT	1	2622
BfuCI	!GATC	25	585; 609; 660; 803; 812; 1037; 1112; 1277; 1392; 2572; 2576; 2595; 2906; 2984; 3065; 3074; 3152; 3528; 3544; 3903; 3915; 3993; 4001; 4012; 4087
BglI	GCCNNNN!NGGC	6	90; 212; 283; 679; 1175; 2510
BglII	A!GATCT	1	609

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BisI	GC!NGC	39	822; 975; 1092; 1138; 1143; 1176; 1325; 1335; 1349; 1379; 1382; 1512; 2031; 2053; 2067; 2505; 2644; 2696; 2707; 2797; 2802; 2839; 2880; 2967; 2970; 2973; 3209; 3305; 3346; 3360; 3474; 3813; 3828; 4039; 4245; 4248; 4313; 4456; 4611
BlnI	C!CTAGG	2	2557; 3572
BlpI	GC!TNAGC	0	
BlsI	GCN!GC	39	823; 976; 1093; 1139; 1144; 1177; 1326; 1336; 1350; 1380; 1383; 1513; 2032; 2054; 2068; 2506; 2645; 2697; 2708; 2798; 2803; 2840; 2881; 2968; 2971; 2974; 3210; 3306; 3347; 3361; 3475; 3814; 3829; 4040; 4246; 4249; 4314; 4457; 4612
BmcAI	AGT!ACT	0	
Bme18I	G!GWCC	3	1263; 3251; 3696
Bme1390I	CC!NGG	26	90; 283; 657; 658; 793; 945; 994; 1006; 1021; 1042; 1103; 1172; 1247; 2271; 2326; 2343; 2739; 2899; 3122; 3512; 3701; 3804; 4276; 4494; 4507; 4628
BmeRI	GACNN!NNGTC	0	
BmeT110I	C!YCGRG	3	613; 656; 931
BmgBI	CAC!GTC	0	
BmgBI	GAC!GTG	0	
BmgT120I	GG!NCC	15	84; 277; 655; 824; 1067; 1159; 1264; 1333; 1366; 1843; 3252; 3697; 3743; 3801; 3834
BmiI	GGN!NCC	25	467; 647; 655; 662; 729; 789; 825; 873; 1068; 1100; 1107; 1183; 1890; 1911; 1923; 2114; 2275; 2347; 2736; 2771; 3619; 3698; 3743; 4586; 4625
BmrI	ACTGGGNNNNN!	1	2684
BmrI	!NNNNCCCAGT	2	289; 2436
BmrFI	CC!NGG	26	90; 283; 657; 658; 793; 945; 994; 1006; 1021; 1042; 1103; 1172; 1247; 2271; 2326; 2343; 2739; 2899; 3122; 3512; 3701; 3804; 4276; 4494; 4507; 4628
BmsI	GCATCNNNNN!	9	764; 911; 1280; 1551; 2314; 2386; 3034; 3098; 3373
BmsI	!NNNNNNNNNGATGC	7	357; 1064; 1232; 2693; 2948; 3164; 4556
BmtI	GCTAG!C	1	595
BmuI	ACTGGGNNNNN!	1	2684
BmuI	!NNNNCCCAGT	2	289; 2436
BoxI	GACNN!NNGTC	0	
BpiI	GAAGACNN!	0	
BpiI	!NNNNNGTCTTC	0	
BpI	GAGNNNNNCTCNNNNNNNNNNNN!	2	2524; 3423
BpI	!NNNNNNNGAGNNNNNCTC	2	2492; 3391
BpmI	CTGGAGNNNNNNNNNNNNNNN!	1	3575
BpmI	!NNNNNNNNNNNNNNNCTCCAG	1	3518
Bpu10I	CC!TNAGC	0	
Bpu10I	GC!TNAGG	0	
Bpu14I	TT!CGAA	2	627; 3417
Bpu1102I	GC!TNAGC	0	
BpuAI	GAAGACNN!	0	
BpuAI	!NNNNNGTCTTC	0	
BpuEI	CTTGAGNNNNNNNNNNNNNNN!	2	4029; 4568
BpuEI	!NNNNNNNNNNNNNCTCAAG	3	604; 3111; 4270
BpuMI	CC!SGG	9	657; 658; 1103; 1172; 1247; 2739; 2899; 3512; 4276
BpvUI	CGAT!CG	0	
BsaI	GGTCTCN!	0	
BsaI	!NNNNNGAGACC	2	691; 3724
Bsa29I	AT!CGAT	1	2575
BsaAI	YAC!GTR	4	340; 894; 1851; 3039
BsaBI	GATNN!NNATC	3	802; 1397; 2594
BsaHI	GR!CGYC	8	122; 175; 258; 444; 1346; 2735; 3437; 3516
BsaJI	C!CNNGG	25	360; 649; 656; 677; 791; 932; 944; 1004; 1041; 1170; 1328; 2269; 2341; 2464; 2499; 2508; 2557; 2898; 3167; 3572; 3699; 3700; 3802; 3803; 4493
BsaMI	GAATGCN!	1	1486
BsaMI	G!CATTC	1	1579
BsaWI	W!CCGGW	6	600; 666; 2766; 3610; 4300; 4447
BsaXI	ACNNNNNCTCCNNNNNNNNNN!	1	1815
BsaXI	!NNNNNNNGGAGNNNNNGT	0	
BsaXI	GGAGNNNNNGTNNNNNNNNNN!	0	
BsaXI	!NNNNNNNNNACNNNNNCTCC	1	1785

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BsbI	CAACACNNNNNNNNNNNNNNNNNNNN!	0	
BsbI	!NNNNNNNNNNNNNNNNNNNGTGTG	2	1736; 3643
Bsc4I	CCNNNNN!NNGG	20	49; 783; 1063; 1178; 1260; 1747; 2073; 2465; 2716; 3260; 3541; 3573; 3705; 3740; 3790; 3822; 4175; 4454; 4620; 4638
BscAI	GCATCNNNN!	9	763; 910; 1279; 1550; 2313; 2385; 3033; 3097; 3372
BscAI	!NNNNNNGATGC	7	360; 1067; 1235; 2696; 2951; 3167; 4559
Bse1I	ACTGGN!	3	2679; 2880; 4126
Bse1I	C!CAGT	6	295; 1146; 1764; 2442; 4238; 4251
Bse8I	GATNN!NNATC	3	802; 1397; 2594
Bse21I	CC!TNAGG	2	2215; 3847
Bse118I	R!CCGGY	6	666; 1178; 1952; 3054; 3235; 3518
BseAI	T!CCGGA	0	
BseBI	CC!WGG	17	90; 283; 793; 945; 994; 1006; 1021; 1042; 2271; 2326; 2343; 3122; 3701; 3804; 4494; 4507; 4628
BseCI	AT!CGAT	1	2575
BseDI	C!CNNGG	25	360; 649; 656; 677; 791; 932; 944; 1004; 1041; 1170; 1328; 2269; 2341; 2464; 2499; 2508; 2557; 2898; 3167; 3572; 3699; 3700; 3802; 3803; 4493
Bse3DI	GCAATGNN!	1	2968
Bse3DI	!CATTGC	0	
BseGI	GGATGNN!	4	2595; 3052; 3077; 3531
BseGI	!CATCC	3	845; 902; 2421
BseJI	GATNN!NNATC	3	802; 1397; 2594
BseLI	CCNNNNN!NNGG	20	49; 783; 1063; 1178; 1260; 1747; 2073; 2465; 2716; 3260; 3541; 3573; 3705; 3740; 3790; 3822; 4175; 4454; 4620; 4638
BseMI	GCAATGNN!	1	2968
BseMI	!CATTGC	0	
BseMII	CTCAGNNNNNNNNNN!	2	620; 3861
BseMII	!NNNNNNNNCTGAG	6	1365; 2206; 2508; 3389; 3961; 4370
BseNI	ACTGGN!	3	2679; 2880; 4126
BseNI	C!CAGT	6	295; 1146; 1764; 2442; 4238; 4251
BsePI	G!CGCGC	0	
BseRI	GAGGAGNNNNNNNNNN!	2	1300; 2553
BseRI	!NNNNNNNNCTCCTC	0	
BseSI	GKGCMI!C	7	657; 730; 790; 1171; 2681; 2774; 4343
BseXI	GCAGCNNNNNNNN!	6	1523; 2808; 2850; 3371; 3824; 4324
BseXI	!NNNNNNNNNNNGTCTG	7	1124; 2017; 2682; 2866; 2959; 4025; 4231
BseX3I	C!GGCCG	4	1089; 1176; 1379; 2641
BseYI	C!CCAGC	3	2278; 2350; 4349
BseYI	G!CTGGG	3	1094; 1362; 3239
BsgI	GTGCAGNNNNNNNNNNNNNN!	0	
BsgI	!NNNNNNNNNNNNNNCTGCAC	1	1183
Bsh1236I	CG!CG	17	60; 651; 1142; 1384; 1659; 2035; 2055; 2079; 2110; 2801; 3102; 3540; 3624; 3687; 3756; 4029; 4610
Bsh1285I	CGRY!CG	6	671; 1092; 1179; 1382; 2644; 4319
BshFI	GG!CC	32	84; 277; 655; 682; 740; 824; 1067; 1091; 1145; 1159; 1178; 1324; 1334; 1367; 1381; 1701; 1843; 2498; 2504; 2513; 2556; 2643; 2817; 3208; 3235; 3744; 3801; 3834; 4179; 4613; 4631; 4642
BshNI	G!GYRCC	8	465; 645; 727; 787; 1181; 1888; 2734; 2769
BshTI	A!CCGGT	1	666
BshVI	AT!CGAT	1	2575
BsiEI	CGRY!CG	6	671; 1092; 1179; 1382; 2644; 4319
BsiHKAI	GWGCW!C	4	620; 2848; 3038; 4343
BsiHKCI	C!YCGRG	3	613; 656; 931
BsiSI	C!CGG	24	601; 657; 667; 899; 1103; 1172; 1179; 1247; 1953; 2640; 2717; 2739; 2767; 2898; 2988; 3055; 3236; 3511; 3519; 3611; 4085; 4275; 4301; 4448
BsiWI	C!GTACG	0	
BsII	CCNNNNN!NNGG	20	49; 783; 1063; 1178; 1260; 1747; 2073; 2465; 2716; 3260; 3541; 3573; 3705; 3740; 3790; 3822; 4175; 4454; 4620; 4638
BsIFI	GGGACNNNNNNNNNN!	6	175; 326; 494; 2886; 3418; 3527
BsIFI	!NNNNNNNNNNNNNGTCCC	5	1134; 2251; 2323; 2387; 3682
BsmI	GAATGCN!	1	1486
BsmI	G!CATTC	1	1579
BsmAI	GTCTCN!	1	434

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BsmAI	!NNNNNGAGAC	5	691; 2159; 2577; 3596; 3724
BsmBI	CGTCTCN!	0	
BsmBI	!NNNNNGAGACG	0	
BsmFI	GGGACNNNNNNNNNN!	6	175; 326; 494; 2886; 3418; 3527
BsmFI	!NNNNNNNNNNNNNGTCCC	5	1134; 2251; 2323; 2387; 3682
BsnI	GG!CC	32	84; 277; 655; 682; 740; 824; 1067; 1091; 1145; 1159; 1178; 1324; 1334; 1367; 1381; 1701; 1843; 2498; 2504; 2513; 2556; 2643; 2817; 3208; 3235; 3744; 3801; 3834; 4179; 4613; 4631; 4642
Bso31I	GGTCTCN!	0	
Bso31I	!NNNNNGAGACC	2	691; 3724
BsoBI	C!YCGRG	3	613; 656; 931
Bsp13I	T!CCGGA	0	
Bsp19I	C!CATGG	4	360; 677; 2464; 3167
Bsp24I	GACNNNNNNTGGNNNNNNNNNN!	2	289; 3538
Bsp24I	!NNNNNNNCCANNNNNNNGTC	3	835; 3959; 4137
Bsp24I	CCANNNNNNGTCNNNNNNNNNN!	3	867; 3991; 4169
Bsp24I	!NNNNNNNGACNNNNNNNTGG	2	257; 3506
Bsp68I	TCG!CGA	0	
Bsp119I	TT!CGAA	2	627; 3417
Bsp120I	G!GGCCC	1	653
Bsp143I	!GATC	25	585; 609; 660; 803; 812; 1037; 1112; 1277; 1392; 2572; 2576; 2595; 2906; 2984; 3065; 3074; 3152; 3528; 3544; 3903; 3915; 3993; 4001; 4012; 4087
Bsp1286I	GDGCH!C	14	620; 657; 730; 790; 1103; 1171; 1926; 2681; 2774; 2848; 3038; 3100; 3810; 4343
Bsp1407I	T!GTACA	1	1025
Bsp1720I	GC!TNAGC	0	
BspACI	C!CGC	43	58; 86; 98; 112; 279; 507; 589; 649; 986; 1058; 1092; 1212; 1226; 1232; 1269; 1325; 1335; 1349; 1382; 2050; 2053; 2067; 2157; 2405; 2417; 2426; 2438; 2448; 2459; 2505; 2644; 2707; 3209; 3254; 3320; 3346; 3471; 3474; 3622; 3754; 4061; 4205; 4701
BspACI	G!CGG	29	370; 403; 528; 651; 821; 974; 1142; 1175; 1378; 1995; 2022; 2110; 2220; 2801; 2865; 2966; 2969; 3249; 3304; 3402; 3540; 3687; 3827; 4070; 4315; 4436; 4455; 4582; 4610
BspCNI	CTCAGNNNNNNNN!	2	619; 3860
BspCNI	!NNNNNNNCTGAG	6	1366; 2207; 2509; 3390; 3962; 4371
BspDI	AT!CGAT	1	2575
BspD6I	GACTCNNNN!	6	418; 612; 1394; 1808; 3414; 4291
BspD6I	!NNNNNGAGTC	2	1771; 2203
BspEI	T!CCGGA	0	
BspFNI	CG!CG	17	60; 651; 1142; 1384; 1659; 2035; 2055; 2079; 2110; 2801; 3102; 3540; 3624; 3687; 3756; 4029; 4610
BspHI	T!CATGA	2	2161; 3933
BspLI	GGN!NCC	25	467; 647; 655; 662; 729; 789; 825; 873; 1068; 1100; 1107; 1183; 1890; 1911; 1923; 2114; 2275; 2347; 2736; 2771; 3619; 3698; 3743; 4586; 4625
BspMI	ACCTGCNNNN!	3	1198; 3003; 3453
BspMI	!NNNNNNNGCAGGT	1	2622
BspOI	GCTAG!C	1	595
BspPI	GGATCNNNN!	8	668; 2603; 2914; 3160; 3552; 3911; 4009; 4095
BspPI	!NNNNNGATCC	7	580; 655; 1032; 2979; 3523; 3910; 4007
BspQI	GCTCTCN!	0	
BspQI	!NNNNGAAGAGC	2	3079; 3289
BspTI	C!TTAAG	1	1617
BspT104I	TT!CGAA	2	627; 3417
BspT107I	G!GYRCC	8	465; 645; 727; 787; 1181; 1888; 2734; 2769
BspTNI	GGTCTCN!	0	
BspTNI	!NNNNNGAGACC	2	691; 3724
BsrI	ACTGGN!	3	2679; 2880; 4126
BsrI	C!CAGT	6	295; 1146; 1764; 2442; 4238; 4251
BsrBI	CCG!CTC	3	1214; 2159; 3348
BsrBI	GAG!CGG	3	1378; 1995; 3402
BsrDI	GCAATGNN!	1	2968
BsrDI	!CATTGC	0	
BsrFI	R!CCGGY	6	666; 1178; 1952; 3054; 3235; 3518

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BsrGI	T!GTACA	1	1025
BsrSI	ACTGGN!	3	2679; 2880; 4126
BsrSI	C!CAGT	6	295; 1146; 1764; 2442; 4238; 4251
BssAI	R!CCGGY	6	666; 1178; 1952; 3054; 3235; 3518
BssECI	C!CNNGG	25	360; 649; 656; 677; 791; 932; 944; 1004; 1041; 1170; 1328; 2269; 2341; 2464; 2499; 2508; 2557; 2898; 3167; 3572; 3699; 3700; 3802; 3803; 4493
BssHII	G!CGCGC	0	
BssKI	!CCNGG	26	88; 281; 655; 656; 791; 943; 992; 1004; 1019; 1040; 1101; 1170; 1245; 2269; 2324; 2341; 2737; 2897; 3120; 3510; 3699; 3802; 4274; 4492; 4505; 4626
BssMI	!GATC	25	585; 609; 660; 803; 812; 1037; 1112; 1277; 1392; 2572; 2576; 2595; 2906; 2984; 3065; 3074; 3152; 3528; 3544; 3903; 3915; 3993; 4001; 4012; 4087
BssNI	GR!CGYC	8	122; 175; 258; 444; 1346; 2735; 3437; 3516
BssNAI	GTA!TAC	0	
BssSI	C!ACGAG	2	3453; 4480
BssSI	C!TCGTG	1	3327
BssTII	C!CWWGG	6	360; 677; 2464; 2557; 3167; 3572
Bst6I	CTCTTCN!	0	
Bst6I	!NNNNGAAGAG	3	2202; 3079; 3289
Bst98I	C!TTAAG	1	1617
Bst1107I	GTA!TAC	0	
BstACI	GR!CGYC	8	122; 175; 258; 444; 1346; 2735; 3437; 3516
BstAFI	C!TTAAG	1	1617
BstAPI	GCANNNN!NTGC	3	2302; 2374; 3836
BstAUI	T!GTACA	1	1025
BstBI	TT!CGAA	2	627; 3417
Bst2BI	C!ACGAG	2	3453; 4480
Bst2BI	C!TCGTG	1	3327
BstBAI	YAC!GTR	4	340; 894; 1851; 3039
Bst4CI	ACN!GT	15	76; 198; 269; 543; 581; 645; 732; 1826; 3115; 3231; 3339; 3662; 4153; 4623; 4694
BstC8I	GCN!NGC	31	86; 279; 593; 653; 1135; 1180; 1226; 1954; 1997; 2011; 2284; 2303; 2356; 2375; 2629; 2815; 3034; 3100; 3106; 3138; 3179; 3183; 3237; 3520; 3707; 3754; 3810; 3832; 4043; 4603; 4640
BstDEI	C!TNAG	8	606; 1374; 2215; 2517; 3398; 3847; 3970; 4379
BstDSI	C!CRYGG	6	360; 649; 677; 1328; 2464; 3167
BstEII	G!GTNACC	0	
BstENI	CCTNN!NNNAGG	0	
BstF5I	GGATGNN!	4	2595; 3052; 3077; 3531
BstF5I	!CATCC	3	845; 902; 2421
BstFNI	CG!CG	17	60; 651; 1142; 1384; 1659; 2035; 2055; 2079; 2110; 2801; 3102; 3540; 3624; 3687; 3756; 4029; 4610
BstH2I	RGCGC!Y	5	598; 2002; 2010; 2738; 4413
BstHHI	GCG!C	23	597; 953; 1142; 2001; 2009; 2035; 2057; 2066; 2079; 2110; 2729; 2737; 2801; 2838; 3104; 3364; 3540; 3626; 4029; 4138; 4312; 4412; 4479
BstKTI	GAT!C	25	588; 612; 663; 806; 815; 1040; 1115; 1280; 1395; 2575; 2579; 2598; 2909; 2987; 3068; 3077; 3155; 3531; 3547; 3906; 3918; 3996; 4004; 4015; 4090
BstMAI	GTCTCN!	1	434
BstMAI	!NNNNGAGAC	5	691; 2159; 2577; 3596; 3724
BstMBI	!GATC	25	585; 609; 660; 803; 812; 1037; 1112; 1277; 1392; 2572; 2576; 2595; 2906; 2984; 3065; 3074; 3152; 3528; 3544; 3903; 3915; 3993; 4001; 4012; 4087
BstMCI	CGRY!CG	6	671; 1092; 1179; 1382; 2644; 4319
BstMWI	GCNNNNN!NNGC	31	90; 212; 244; 283; 376; 400; 679; 752; 869; 1139; 1175; 1340; 1962; 1992; 2019; 2061; 2302; 2374; 2425; 2504; 2726; 2810; 2833; 2972; 3095; 3178; 3445; 3632; 3836; 4035; 4607
BstNI	CC!WGG	17	90; 283; 793; 945; 994; 1006; 1021; 1042; 2271; 2326; 2343; 3122; 3701; 3804; 4494; 4507; 4628
BstNSI	RCATG!Y	5	867; 2305; 2377; 3140; 4657
BstOI	CC!WGG	17	90; 283; 793; 945; 994; 1006; 1021; 1042; 2271; 2326; 2343; 3122; 3701; 3804; 4494; 4507; 4628
BstPI	G!GTNACC	0	
BstPAI	GACNN!NNGTC	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BstSCI	!CCNGG	26	88; 281; 655; 656; 791; 943; 992; 1004; 1019; 1040; 1101; 1170; 1245; 2269; 2324; 2341; 2737; 2897; 3120; 3510; 3699; 3802; 4274; 4492; 4505; 4626
BstSFI	C!TRYAG	4	634; 2070; 4197; 4388
BstSLI	GKGCMI!C	7	657; 730; 790; 1171; 2681; 2774; 4343
BstSNI	TAC!GTA	1	340
BstUI	CG!CG	17	60; 651; 1142; 1384; 1659; 2035; 2055; 2079; 2110; 2801; 3102; 3540; 3624; 3687; 3756; 4029; 4610
Bst2UI	CC!WGG	17	90; 283; 793; 945; 994; 1006; 1021; 1042; 2271; 2326; 2343; 3122; 3701; 3804; 4494; 4507; 4628
BstV1I	GCAGCNNNNNNNN!	6	1523; 2808; 2850; 3371; 3824; 4324
BstV1I	!NNNNNNNNNNNGCTGC	7	1124; 2017; 2682; 2866; 2959; 4025; 4231
BstV2I	GAAGACNN!	0	
BstV2I	!NNNNNNNGTCTTC	0	
BstXI	CCANNNNN!NTGG	0	
BstX2I	R!GATCY	11	585; 609; 660; 1037; 2906; 3152; 3544; 3903; 3915; 4001; 4012
BstYI	R!GATCY	11	585; 609; 660; 1037; 2906; 3152; 3544; 3903; 3915; 4001; 4012
BstZI	C!GGCCG	4	1089; 1176; 1379; 2641
BstZ17I	GTA!TAC	0	
BsuI	GTATCCNNNNNN!	3	2164; 2954; 4455
BsuI	!NNNNNGGATAC	0	
Bsu15I	AT!CGAT	1	2575
Bsu36I	CC!TNAGG	2	2215; 3847
BsuRI	GG!CC	32	84; 277; 655; 682; 740; 824; 1067; 1091; 1145; 1159; 1178; 1324; 1334; 1367; 1381; 1701; 1843; 2498; 2504; 2513; 2556; 2643; 2817; 3208; 3235; 3744; 3801; 3834; 4179; 4613; 4631; 4642
BsuTUI	AT!CGAT	1	2575
BtgI	C!CRYGG	6	360; 649; 677; 1328; 2464; 3167
BtgZI	GCGATGNNNNNNNNNN!	2	1852; 3187
BtgZI	!NNNNNNNNNNNNNNCATCGC	3	334; 3006; 3350
BthCI	GCNG!C	39	824; 977; 1094; 1140; 1145; 1178; 1327; 1337; 1351; 1381; 1384; 1514; 2033; 2055; 2069; 2507; 2646; 2698; 2709; 2799; 2804; 2841; 2882; 2969; 2972; 2975; 3211; 3307; 3348; 3362; 3476; 3815; 3830; 4041; 4247; 4250; 4315; 4458; 4613
BtrI	CAC!GTC	0	
BtrI	GAC!GTG	0	
BtsI	GCAGTGNN!	0	
BtsI	!CACTGC	2	741; 1574
BtsCI	GGATGNN!	4	2595; 3052; 3077; 3531
BtsCI	!CATCC	3	845; 902; 2421
BtuMI	TCG!CGA	0	
BveI	ACCTGCNNNN!	3	1198; 3003; 3453
BveI	!NNNNNNNNNGCAGGT	1	2622
Cac8I	GCN!NGC	31	86; 279; 593; 653; 1135; 1180; 1226; 1954; 1997; 2011; 2284; 2303; 2356; 2375; 2629; 2815; 3034; 3100; 3106; 3138; 3179; 3183; 3237; 3520; 3707; 3754; 3810; 3832; 4043; 4603; 4640
CaiI	CAGNNN!CTG	3	1152; 3836; 4244
CciI	T!CATGA	2	2161; 3933
CciNI	GC!GGCCGC	1	1379
CdiI	CATC!G	8	352; 723; 759; 1275; 3024; 3029; 3227; 3368
CdiI	C!GATG	2	1838; 3173
CdpI	GCGGAGNNNNNNNNNNNNNNNNNNNN!	1	4607
CdpI	!NNNNNNNNNNNNNNNNNNNCTCCGC	4	486; 1211; 2396; 2438
CelII	GC!TNAGC	0	
CfoI	GCG!C	23	597; 953; 1142; 2001; 2009; 2035; 2057; 2066; 2079; 2110; 2729; 2737; 2801; 2838; 3104; 3364; 3540; 3626; 4029; 4138; 4312; 4412; 4479
CfrI	Y!GGCCR	9	738; 1089; 1143; 1176; 1379; 2641; 2815; 3206; 3233
Cfr9I	C!CCGGG	1	656
Cfr10I	R!CCGGY	6	666; 1178; 1952; 3054; 3235; 3518
Cfr13I	G!GNCC	15	83; 276; 654; 823; 1066; 1158; 1263; 1332; 1365; 1842; 3251; 3696; 3742; 3800; 3833
Cfr42I	CCG!GG	1	652
ChaI	GATC!	25	589; 613; 664; 807; 816; 1041; 1116; 1281; 1396; 2576; 2580; 2599; 2910; 2988; 3069; 3078; 3156; 3532; 3548; 3907; 3919; 3997; 4005; 4016; 4091



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
CjeI	CCANNNNNNGTNNNNNNNNNNNNNNNN!	5	868; 2552; 3992; 4092; 4170
CjeI	!NNNNNNNNNACNNNNNNNTGG	7	64; 257; 2219; 2314; 3506; 4056; 4611
CjeI	ACNNNNNNNTGGNNNNNNNNNNNNNN!	7	98; 291; 2253; 2348; 3540; 4090; 4645
CjeI	!NNNNNNNNCCANNNNNNGT	5	834; 2518; 3958; 4058; 4136
CjePI	CCANNNNNNTCANNNNNNNNNNNN!	4	868; 1018; 3992; 4170
CjePI	!NNNNNNNNGANNNNNNNTGG	3	257; 3506; 4105
CjePI	GANNNNNNNTGGNNNNNNNNNNNNNN!	3	290; 3539; 4138
CjePI	!NNNNNNNNCCANNNNNNNNTC	4	835; 985; 3959; 4137
Clai	AT!CGAT	1	2575
CpoI	CG!GWCCG	1	3251
CseI	GACGCNNNNN!	4	526; 1354; 3445; 3524
CseI	!NNNNNNNNNNGCGTC	3	2068; 3963; 4541
CsiI	A!CCWGGT	1	2324
CspI	CG!GWCCG	1	3251
Csp6I	G!TAC	13	218; 243; 298; 331; 382; 539; 646; 867; 891; 1026; 1119; 1317; 3040
Csp45I	TT!CGAA	2	627; 3417
CspAI	A!CCGGT	1	666
CspCI	CAANNNNNGTGGNNNNNNNNNNNN!	1	411
CspCI	!NNNNNNNNNNCCACNNNNNTTG	0	
CspCI	CCACNNNNNTTGNNNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNNCAANNNNNGTGG	1	376
CstMI	AAGGAGNNNNNNNNNNNNNNNNNN!	2	2015; 3624
CstMI	!NNNNNNNNNNNNNNNNNNCTCCTT	0	
CviAII	C!ATG	19	301; 361; 678; 702; 864; 1281; 2162; 2302; 2374; 2465; 2606; 2951; 3137; 3168; 3194; 3550; 3934; 4654; 4705
CviJI	RG!CY	93	42; 84; 93; 277; 566; 618; 624; 655; 682; 740; 824; 872; 938; 977; 1067; 1091; 1101; 1145; 1159; 1178; 1224; 1250; 1324; 1334; 1362; 1367; 1381; 1404; 1514; 1681; 1701; 1843; 1924; 1938; 1952; 2233; 2274; 2346; 2469; 2498; 2504; 2513; 2521; 2544; 2556; 2562; 2643; 2660; 2668; 2695; 2720; 2804; 2813; 2817; 2841; 2879; 2955; 2972; 2991; 3054; 3098; 3108; 3125; 3208; 3235; 3239; 3276; 3299; 3315; 3495; 3522; 3583; 3705; 3744; 3801; 3808; 3815; 3834; 3845; 4096; 4125; 4168; 4179; 4244; 4323; 4348; 4353; 4399; 4489; 4587; 4613; 4631; 4642
CviKI-1	RG!CY	93	42; 84; 93; 277; 566; 618; 624; 655; 682; 740; 824; 872; 938; 977; 1067; 1091; 1101; 1145; 1159; 1178; 1224; 1250; 1324; 1334; 1362; 1367; 1381; 1404; 1514; 1681; 1701; 1843; 1924; 1938; 1952; 2233; 2274; 2346; 2469; 2498; 2504; 2513; 2521; 2544; 2556; 2562; 2643; 2660; 2668; 2695; 2720; 2804; 2813; 2817; 2841; 2879; 2955; 2972; 2991; 3054; 3098; 3108; 3125; 3208; 3235; 3239; 3276; 3299; 3315; 3495; 3522; 3583; 3705; 3744; 3801; 3808; 3815; 3834; 3845; 4096; 4125; 4168; 4179; 4244; 4323; 4348; 4353; 4399; 4489; 4587; 4613; 4631; 4642
CviQI	G!TAC	13	218; 243; 298; 331; 382; 539; 646; 867; 891; 1026; 1119; 1317; 3040
DdeI	C!TNAG	8	606; 1374; 2215; 2517; 3398; 3847; 3970; 4379
DinI	GGC!GCC	1	2736
DpnI	GA!TC	25	587; 611; 662; 805; 814; 1039; 1114; 1279; 1394; 2574; 2578; 2597; 2908; 2986; 3067; 3076; 3154; 3530; 3546; 3905; 3917; 3995; 4003; 4014; 4089
DpnII	!GATC	25	585; 609; 660; 803; 812; 1037; 1112; 1277; 1392; 2572; 2576; 2595; 2906; 2984; 3065; 3074; 3152; 3528; 3544; 3903; 3915; 3993; 4001; 4012; 4087
DraI	TTT!AAA	3	1437; 3879; 3898
DraII	RG!GNCCY	1	3833
DraIII	CACNN!GTG	1	1851
DraRI	CAAGNACNNNNNNNNNNNNNNNNNN!	3	266; 914; 4215
DraRI	!NNNNNNNNNNNNNNNNNGTCTTG	0	
DrdI	GACNNN!NNGTC	3	1806; 2762; 4551
DrdIV	TACGACNNNNNNNNNNNNNNNNNN!	0	
DrdIV	!NNNNNNNNNNNNNNNNNGTCGTA	1	476
DriI	GACNNN!NNGTC	0	
DseDI	GACNNN!NNGTC	3	1806; 2762; 4551
EaeI	Y!GGCCR	9	738; 1089; 1143; 1176; 1379; 2641; 2815; 3206; 3233
EagI	C!GGCCG	4	1089; 1176; 1379; 2641
Eam1104I	CTCTTCN!	0	
Eam1104I	!NNNNGAAGAG	3	2202; 3079; 3289

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	2202; 3079; 3289
EciI	GGCGGANNNNNNNNNN!	4	2235; 3264; 4451; 4597
EciI	!NNNNNNNNNTCCGCC	5	496; 1221; 2406; 2427; 2448
Ecl136II	GAG!CTC	1	618
EclXI	C!GGCCG	4	1089; 1176; 1379; 2641
Eco24I	GRGCY!C	6	620; 657; 1103; 1926; 3100; 3810
Eco31I	GGTCTCN!	0	
Eco31I	!NNNNNGAGACC	2	691; 3724
Eco32I	GAT!ATC	0	
Eco47I	G!GWCC	3	1263; 3251; 3696
Eco47III	AGC!GCT	1	596
Eco52I	C!GGCCG	4	1089; 1176; 1379; 2641
Eco57I	CTGAAGNNNNNNNNNNNNNN!	4	1183; 1258; 2881; 3313
Eco57I	!NNNNNNNNNNNNNNCTTCAG	1	4111
Eco72I	CAC!GTG	0	
Eco81I	CC!TNAGG	2	2215; 3847
Eco88I	C!YCGRG	3	613; 656; 931
Eco91I	G!GTNACC	0	
Eco105I	TAC!GTA	1	340
Eco130I	C!CWWGG	6	360; 677; 2464; 2557; 3167; 3572
Eco147I	AGG!CCT	1	2556
EcoHI	!CCSGG	9	655; 656; 1101; 1170; 1245; 2737; 2897; 3510; 4274
EcoICRI	GAG!CTC	1	618
Eco57MI	CTGRAGNNNNNNNNNNNNNN!	5	1183; 1258; 2881; 3313; 3575
Eco57MI	!NNNNNNNNNNNNNNCTYCAG	2	3518; 4111
EcoNI	CCTNN!NNNAGG	0	
Eco065I	G!GTNACC	0	
Eco0109I	RG!GNCCY	1	3833
EcoRI	G!AATTC	1	629
EcoRII	!CCWGG	17	88; 281; 791; 943; 992; 1004; 1019; 1040; 2269; 2324; 2341; 3120; 3699; 3802; 4492; 4505; 4626
EcoRV	GAT!ATC	0	
EcoT14I	C!CWWGG	6	360; 677; 2464; 2557; 3167; 3572
EcoT22I	ATGCA!T	3	2307; 2379; 4710
EcoT38I	GRGCY!C	6	620; 657; 1103; 1926; 3100; 3810
Eco53kl	GAG!CTC	1	618
EgeI	GGC!GCC	1	2736
EheI	GGC!GCC	1	2736
ErhI	C!CWWGG	6	360; 677; 2464; 2557; 3167; 3572
EsaBC3I	TC!GA	20	615; 628; 641; 723; 783; 807; 816; 1260; 1275; 1885; 2576; 2849; 3005; 3029; 3065; 3227; 3418; 3463; 3718; 4556
Esp3I	CGTCTCN!	0	
Esp3I	!NNNNNGAGACG	0	
FaeI	CATG!	19	304; 364; 681; 705; 867; 1284; 2165; 2305; 2377; 2468; 2609; 2954; 3140; 3171; 3197; 3553; 3937; 4657; 4708
FaiI	YA!TR	55	39; 46; 50; 67; 138; 146; 234; 236; 291; 302; 310; 362; 555; 557; 679; 703; 865; 1282; 1397; 1407; 1473; 1518; 1723; 2151; 2163; 2294; 2303; 2366; 2375; 2399; 2466; 2490; 2607; 2671; 2952; 2977; 3138; 3169; 3195; 3267; 3483; 3551; 3629; 3681; 3842; 3859; 3861; 3863; 3935; 4213; 4402; 4518; 4591; 4655; 4706
FaI	AAGNNNNNCTNNNNNNNNNNNN!	2	942; 3075
FaI	!NNNNNNNNAAGNNNNNCTT	2	910; 3043
FaqI	GGGACNNNNNNNNNN!	6	175; 326; 494; 2886; 3418; 3527
FaqI	!NNNNNNNNNNNNNGTCCC	5	1134; 2251; 2323; 2387; 3682
FatI	!CATG	19	300; 360; 677; 701; 863; 1280; 2161; 2301; 2373; 2464; 2605; 2950; 3136; 3167; 3193; 3549; 3933; 4653; 4704
FauI	CCCGCNNNN!	10	93; 119; 286; 1065; 1233; 2057; 2412; 2433; 3629; 3761
FauI	!NNNNNGCGGG	6	644; 1988; 2858; 3395; 3533; 3680
FauNDI	CA!TATG	1	234
FbaI	T!GATCA	0	
FblI	GT!MKAC	1	640
FmuI	GGNC!C	15	86; 279; 657; 826; 1069; 1161; 1266; 1335; 1368; 1845; 3254; 3699; 3745; 3803; 3836



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
HgaI	GACGCNNNNN!	4	526; 1354; 3445; 3524
HgaI	!NNNNNNNNNGCGTC	3	2068; 3963; 4541
HhaI	GCG!C	23	597; 953; 1142; 2001; 2009; 2035; 2057; 2066; 2079; 2110; 2729; 2737; 2801; 2838; 3104; 3364; 3540; 3626; 4029; 4138; 4312; 4412; 4479
HinI	GR!CGYC	8	122; 175; 258; 444; 1346; 2735; 3437; 3516
Hin1II	CATG!	19	304; 364; 681; 705; 867; 1284; 2165; 2305; 2377; 2468; 2609; 2954; 3140; 3171; 3197; 3553; 3937; 4657; 4708
Hin4I	GAYNNNNNVTCNNNNNNNNNNNN!	2	1409; 2930
Hin4I	!NNNNNNNNGABNNNNNNRTC	3	1377; 2898; 2928
Hin4I	GABNNNNNNRTCNNNNNNNNNNNN!	3	1409; 2930; 2960
Hin4I	!NNNNNNNNGAYNNNNNVTC	2	1377; 2898
Hin6I	G!CGC	23	595; 951; 1140; 1999; 2007; 2033; 2055; 2064; 2077; 2108; 2727; 2735; 2799; 2836; 3102; 3362; 3538; 3624; 4027; 4136; 4310; 4410; 4477
HinP1I	G!CGC	23	595; 951; 1140; 1999; 2007; 2033; 2055; 2064; 2077; 2108; 2727; 2735; 2799; 2836; 3102; 3362; 3538; 3624; 4027; 4136; 4310; 4410; 4477
HincII	GTY!RAC	2	641; 1498
HindII	GTY!RAC	2	641; 1498
HindIII	A!AGCTT	1	622
HinfI	G!ANTC	13	410; 604; 1386; 1778; 1800; 2210; 3220; 3354; 3406; 3464; 3501; 4283; 4679
HpaI	GTT!AAC	1	1498
HpaII	C!CGG	24	601; 657; 667; 899; 1103; 1172; 1179; 1247; 1953; 2640; 2717; 2739; 2767; 2898; 2988; 3055; 3236; 3511; 3519; 3611; 4085; 4275; 4301; 4448
HphI	GGTGANNNNNNN!	5	376; 822; 1044; 3806; 3922
HphI	!NNNNNNNTCACC	3	933; 1852; 2913
Hpy8I	GTN!NAC	14	201; 539; 577; 641; 735; 854; 1026; 1119; 1128; 1498; 1782; 1799; 1854; 4341
Hpy99I	CGWCG!	10	645; 1066; 1348; 2825; 2853; 3147; 3162; 3439; 3824; 4557
Hpy166II	GTN!NAC	14	201; 539; 577; 641; 735; 854; 1026; 1119; 1128; 1498; 1782; 1799; 1854; 4341
Hpy188I	TCN!GA	12	585; 609; 1909; 2518; 2702; 3046; 3399; 3500; 3979; 4113; 4466; 4544
Hpy188III	TC!NNGA	24	613; 711; 981; 1275; 1390; 2162; 2214; 2527; 2580; 2753; 3069; 3078; 3161; 3217; 3261; 3351; 3384; 3453; 3934; 4008; 4091; 4189; 4287; 4421
HpyAV	CCTTCNNNNNN!	8	717; 789; 843; 891; 936; 3380; 3487; 4166
HpyAV	!NNNNNGAAGG	8	1290; 1968; 2863; 3592; 3608; 3791; 4108; 4418
HpyCH4III	ACN!GT	15	76; 198; 269; 543; 581; 645; 732; 1826; 3115; 3231; 3339; 3662; 4153; 4623; 4694
HpyCH4IV	A!CGT	15	122; 134; 175; 258; 339; 444; 893; 1795; 1807; 1850; 1960; 2851; 3038; 3819; 3952
HpyCH4V	TG!CA	21	636; 755; 863; 1077; 1200; 1484; 1511; 1579; 2296; 2305; 2368; 2377; 2492; 2568; 2627; 2786; 2961; 2975; 4045; 4341; 4708
HpyF3I	C!TNAG	8	606; 1374; 2215; 2517; 3398; 3847; 3970; 4379
HpyF10VI	GCNNNNN!NNGC	31	90; 212; 244; 283; 376; 400; 679; 752; 869; 1139; 1175; 1340; 1962; 1992; 2019; 2061; 2302; 2374; 2425; 2504; 2726; 2810; 2833; 2972; 3095; 3178; 3445; 3632; 3836; 4035; 4607
Hsp92I	GR!CGYC	8	122; 175; 258; 444; 1346; 2735; 3437; 3516
Hsp92II	CATG!	19	304; 364; 681; 705; 867; 1284; 2165; 2305; 2377; 2468; 2609; 2954; 3140; 3171; 3197; 3553; 3937; 4657; 4708
HspAI	G!CGC	23	595; 951; 1140; 1999; 2007; 2033; 2055; 2064; 2077; 2108; 2727; 2735; 2799; 2836; 3102; 3362; 3538; 3624; 4027; 4136; 4310; 4410; 4477
KasI	G!GCGCC	1	2734
KfII	GG!GWCCC	0	
KpnI	GGTAC!C	1	649
Kpn2I	T!CCGGA	0	
KspI	CCGC!GG	1	652
Ksp22I	T!GATCA	0	
KspAI	GTT!AAC	1	1498
Kzo9I	!GATC	25	585; 609; 660; 803; 812; 1037; 1112; 1277; 1392; 2572; 2576; 2595; 2906; 2984; 3065; 3074; 3152; 3528; 3544; 3903; 3915; 3993; 4001; 4012; 4087

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
LguI	GCTCTTCN!	0	
LguI	!NNNNGAAGAGC	2	3079; 3289
LpnI	RGC!GCGY	5	596; 2000; 2008; 2736; 4411
LpnPI	CCDGNNNNNNNNNN!	64	102; 295; 614; 670; 700; 805; 841; 862; 912; 957; 994; 1018; 1033; 1054; 1116; 1159; 1174; 1192; 1210; 1249; 1472; 1777; 1966; 2189; 2227; 2243; 2283; 2338; 2355; 2455; 2540; 2653; 2730; 2752; 2775; 2911; 2925; 2944; 3001; 3068; 3118; 3134; 3191; 3249; 3458; 3524; 3548; 3624; 3713; 3816; 3849; 4080; 4098; 4244; 4264; 4288; 4314; 4363; 4461; 4506; 4536; 4615; 4640; 4677
LpnPI	!NNNNNNNNNNNNNNCHGG	56	75; 268; 552; 586; 642; 778; 884; 930; 979; 1006; 1027; 1080; 1157; 1232; 1348; 1818; 1938; 1995; 2058; 2256; 2268; 2328; 2340; 2572; 2617; 2660; 2702; 2724; 2752; 2799; 2861; 2883; 2973; 3040; 3063; 3107; 3202; 3221; 3246; 3395; 3496; 3539; 3596; 3686; 3789; 3816; 3834; 4070; 4107; 4260; 4286; 4426; 4444; 4479; 4560; 4613
Lsp1109I	GCAGCNNNNNNN!	6	1523; 2808; 2850; 3371; 3824; 4324
Lsp1109I	!NNNNNNNNNNNGCTGC	7	1124; 2017; 2682; 2866; 2959; 4025; 4231
LweI	GCATCNNNNN!	9	764; 911; 1280; 1551; 2314; 2386; 3034; 3098; 3373
LweI	!NNNNNNNNNGATGC	7	357; 1064; 1232; 2693; 2948; 3164; 4556
MabI	A!CCWGGT	1	2324
MaeI	C!TAG	8	592; 1390; 1584; 2002; 2558; 3573; 3907; 4160
MaeII	A!CGT	15	122; 134; 175; 258; 339; 444; 893; 1795; 1807; 1850; 1960; 2851; 3038; 3819; 3952
MaeIII	!GTNAC	13	61; 148; 497; 1045; 1523; 2024; 2036; 2855; 3161; 3851; 4117; 4233; 4296
MaI	GA!TC	25	587; 611; 662; 805; 814; 1039; 1114; 1279; 1394; 2574; 2578; 2597; 2908; 2986; 3067; 3076; 3154; 3530; 3546; 3905; 3917; 3995; 4003; 4014; 4089
MaqI	CRTTGACNNNNNNNNNNNNNNNNNNNNN!	4	144; 197; 466; 540
MaqI	!NNNNNNNNNNNNNNNNNNNGTCAAYG	3	157; 240; 426
MauBI	CG!CGCGCG	0	
MbiI	CCG!CTC	3	1214; 2159; 3348
MbiI	GAG!CGG	3	1378; 1995; 3402
MboI	!GATC	25	585; 609; 660; 803; 812; 1037; 1112; 1277; 1392; 2572; 2576; 2595; 2906; 2984; 3065; 3074; 3152; 3528; 3544; 3903; 3915; 3993; 4001; 4012; 4087
MboII	GAAGANNNNNNNN!	8	813; 1047; 1251; 1991; 2219; 3096; 3306; 3925
MboII	!NNNNNNNTCTTC	4	3386; 3553; 3753; 3996
McaTI	GCGC!GC	0	
MfeI	C!AATTG	1	1485
MflI	R!GATCY	11	585; 609; 660; 1037; 2906; 3152; 3544; 3903; 3915; 4001; 4012
MhII	GDGCH!C	14	620; 657; 730; 790; 1103; 1171; 1926; 2681; 2774; 2848; 3038; 3100; 3810; 4343
MIsI	TGG!CCA	1	2817
MluI	A!CGCGT	0	
MluNI	TGG!CCA	1	2817
MlyI	GAGTCNNNNN!	2	1787; 2219
MlyI	!NNNNNGACTC	6	404; 598; 1380; 1794; 3400; 4277
Mly113I	GG!CGCC	1	2735
MmeI	TCCRACNNNNNNNNNNNNNNNNNNNNN!	1	1828
MmeI	!NNNNNNNNNNNNNNNNNNNGTYGGA	2	4260; 4444
MnII	CCTCNNNNNNN!	12	693; 867; 1011; 1239; 1365; 1454; 2518; 3336; 3542; 3856; 4226; 4550
MnII	!NNNNNGAGG	23	541; 717; 762; 777; 801; 927; 960; 1116; 1254; 1278; 1314; 1414; 1879; 2210; 2488; 2531; 2546; 2586; 2650; 2786; 3143; 3573; 4476
Mph1103I	ATGCA!T	3	2307; 2379; 4710
MreI	CG!CCGGCG	0	
MroI	T!CCGGA	0	
MroNI	G!CCGGC	4	1178; 1952; 3235; 3518
MroXI	GAANN!NNTTC	0	
MscI	TGG!CCA	1	2817
MseI	T!TAA	15	7; 1436; 1497; 1618; 1639; 1650; 1662; 1673; 1690; 1788; 2059; 3878; 3892; 3897; 3949
MslI	CAYNN!NRTG	2	365; 3172

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
MspI	C!CGG	24	601; 657; 667; 899; 1103; 1172; 1179; 1247; 1953; 2640; 2717; 2739; 2767; 2898; 2988; 3055; 3236; 3511; 3519; 3611; 4085; 4275; 4301; 4448
Msp20I	TGG!CCA	1	2817
MspA1I	CMG!CKG	6	651; 1094; 2233; 2841; 4070; 4315
MspCI	C!TTAAG	1	1617
MspJI	CNNRNNNNNNNNN!	237	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; 627; 640; 662; 679; 699; 714; 735; 762; 780; 795; 819; 840; 856; 872; 887; 900; 919; 943; 956; 974; 993; 1006; 1032; 1053; 1069; 1083; 1107; 1121; 1134; 1153; 1173; 1191; 1209; 1229; 1248; 1272; 1287; 1314; 1332; 1370; 1386; 1402; 1418; 1442; 1459; 1472; 1513; 1527; 1540; 1558; 1596; 1611; 1629; 1670; 1694; 1714; 1732; 1753; 1776; 1808; 1823; 1845; 1863; 1876; 1897; 1914; 1927; 1940; 1956; 1969; 1999; 2014; 2039; 2057; 2070; 2085; 2109; 2123; 2147; 2172; 2188; 2226; 2242; 2281; 2295; 2309; 2337; 2353; 2367; 2381; 2410; 2423; 2444; 2453; 2475; 2505; 2521; 2539; 2569; 2592; 2616; 2640; 2659; 2687; 2713; 2729; 2742; 2765; 2779; 2799; 2812; 2826; 2845; 2859; 2872; 2888; 2903; 2916; 2932; 2947; 2963; 2988; 3007; 3023; 3036; 3049; 3067; 3081; 3095; 3111; 3133; 3149; 3168; 3190; 3206; 3229; 3248; 3262; 3278; 3292; 3312; 3328; 3341; 3363; 3396; 3410; 3430; 3443; 3457; 3511; 3524; 3547; 3560; 3579; 3596; 3623; 3659; 3692; 3711; 3736; 3757; 3784; 3797; 3814; 3828; 3843; 3859; 3919; 3944; 3960; 3982; 3995; 4009; 4040; 4054; 4079; 4097; 4112; 4125; 4144; 4157; 4172; 4201; 4220; 4238; 4263; 4278; 4297; 4313; 4332; 4350; 4366; 4380; 4399; 4426; 4449; 4471; 4490; 4505; 4518; 4535; 4555; 4582; 4595; 4614; 4639; 4662; 4676; 4689; 4706
MspJI	!NNNNNNNNNNNNYNG	201	8; 35; 59; 76; 97; 123; 145; 168; 197; 221; 269; 281; 310; 330; 347; 377; 400; 437; 465; 492; 511; 531; 553; 574; 593; 612; 636; 653; 673; 697; 718; 736; 754; 778; 802; 821; 846; 874; 893; 917; 950; 967; 991; 1015; 1043; 1069; 1088; 1106; 1125; 1147; 1165; 1183; 1204; 1222; 1244; 1261; 1288; 1306; 1328; 1345; 1369; 1387; 1416; 1445; 1487; 1570; 1605; 1632; 1655; 1684; 1728; 1750; 1782; 1818; 1835; 1856; 1893; 1913; 1930; 1947; 1982; 2000; 2018; 2035; 2059; 2081; 2108; 2136; 2162; 2200; 2221; 2238; 2256; 2279; 2300; 2328; 2351; 2372; 2390; 2411; 2428; 2451; 2475; 2495; 2513; 2535; 2566; 2588; 2614; 2633; 2650; 2678; 2697; 2716; 2734; 2752; 2773; 2795; 2819; 2852; 2872; 2890; 2911; 2937; 2964; 2981; 2998; 3015; 3041; 3063; 3085; 3103; 3123; 3142; 3164; 3202; 3222; 3246; 3266; 3286; 3313; 3337; 3370; 3389; 3417; 3439; 3468; 3496; 3521; 3540; 3559; 3580; 3597; 3614; 3645; 3672; 3692; 3715; 3735; 3772; 3789; 3808; 3834; 3854; 3893; 3920; 3939; 3957; 3994; 4012; 4053; 4071; 4097; 4114; 4146; 4175; 4203; 4224; 4247; 4266; 4287; 4305; 4322; 4340; 4366; 4387; 4407; 4427; 4445; 4466; 4492; 4509; 4528; 4547; 4576; 4595; 4613; 4632; 4650; 4668; 4691
MspR9I	CC!NGG	26	90; 283; 657; 658; 793; 945; 994; 1006; 1021; 1042; 1103; 1172; 1247; 2271; 2326; 2343; 2739; 2899; 3122; 3512; 3701; 3804; 4276; 4494; 4507; 4628
MssI	GTTT!AAC	0	
MunI	C!AATTG	1	1485
MvaI	CC!WGG	17	90; 283; 793; 945; 994; 1006; 1021; 1042; 2271; 2326; 2343; 3122; 3701; 3804; 4494; 4507; 4628
Mva1269I	GAATGCN!	1	1486
Mva1269I	G!CATTC	1	1579
MvnI	CG!CG	17	60; 651; 1142; 1384; 1659; 2035; 2055; 2079; 2110; 2801; 3102; 3540; 3624; 3687; 3756; 4029; 4610
MvrI	CGAT!CG	0	
MwoI	GCNNNNN!NNGC	31	90; 212; 244; 283; 376; 400; 679; 752; 869; 1139; 1175; 1340; 1962; 1992; 2019; 2061; 2302; 2374; 2425; 2504; 2726; 2810; 2833; 2972; 3095; 3178; 3445; 3632; 3836; 4035; 4607
NaeI	GCC!GGC	4	1180; 1954; 3237; 3520
NarI	GG!CGCC	1	2735
NciI	CC!SGG	9	657; 658; 1103; 1172; 1247; 2739; 2899; 3512; 4276
NcoI	C!CATGG	4	360; 677; 2464; 3167
NdeI	CA!TATG	1	234

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
NdeII	!GATC	25	585; 609; 660; 803; 812; 1037; 1112; 1277; 1392; 2572; 2576; 2595; 2906; 2984; 3065; 3074; 3152; 3528; 3544; 3903; 3915; 3993; 4001; 4012; 4087
NgoAVIII	GACNNNNNTGANNNNNNNNNNNN!	1	280
NgoAVIII	!NNNNNNNNNNNTCANNNNNGTC	0	
NgoAVIII	TCANNNNNGTCNNNNNNNNNNNN!	0	
NgoAVIII	!NNNNNNNNNNNGACNNNNNTGA	1	244
NgoMIV	G!CCGGC	4	1178; 1952; 3235; 3518
NheI	G!CTAGC	1	591
NlaIII	CATG!	19	304; 364; 681; 705; 867; 1284; 2165; 2305; 2377; 2468; 2609; 2954; 3140; 3171; 3197; 3553; 3937; 4657; 4708
NlaIV	GGN!NCC	25	467; 647; 655; 662; 729; 789; 825; 873; 1068; 1100; 1107; 1183; 1890; 1911; 1923; 2114; 2275; 2347; 2736; 2771; 3619; 3698; 3743; 4586; 4625
NlaCI	CATCACNNNNNNNNNNNNNNNNNN!	3	1567; 1882; 3474
NlaCI	!NNNNNNNNNNNNNNNNNGTGATG	3	347; 1054; 4546
Nli3877I	CYCGR!G	3	617; 660; 935
NmeAIII	GCCGAGNNNNNNNNNNNNNNNNNN!	2	2524; 2960
NmeAIII	!NNNNNNNNNNNNNNNNNNCTCGGC	1	2489
NmeDI	RCCGGYNNNNNNN!	6	678; 1190; 1964; 3066; 3247; 3530
NmeDI	!NNNNNNNNNNNNRCCGGY	6	653; 1165; 1939; 3041; 3222; 3505
NmuCI	!GTSAC	3	2024; 2855; 3161
NotI	GC!GGCCGC	1	1379
NruI	TCG!CGA	0	
NsbI	TGC!GCA	1	2837
NsiI	ATGCA!T	3	2307; 2379; 4710
NspI	RCATG!Y	5	867; 2305; 2377; 3140; 4657
NspV	TT!CGAA	2	627; 3417
OliI	CACNN!NNGTG	0	
PabI	GTA!C	13	220; 245; 300; 333; 384; 541; 648; 869; 893; 1028; 1121; 1319; 3042
PacI	TTAAT!TAA	0	
PaeI	GCATG!C	3	2305; 2377; 3140
PaeR7I	C!TCGAG	1	613
PagI	T!CATGA	2	2161; 3933
PalAI	GG!CGCGCC	0	
PasI	CC!CWGGG	2	3700; 3803
PauI	G!CGCGC	0	
PceI	AGG!CCT	1	2556
PciI	A!CATGT	1	4653
PciSI	GCTCTTCN!	0	
PciSI	!NNNNGAAGAGC	2	3079; 3289
PcsI	WCGNNNN!NNNCGW	10	728; 764; 812; 1325; 3029; 3106; 3349; 3423; 3816; 4334
PctI	GAATGCN!	1	1486
PctI	G!CATTC	1	1579
PdiI	GCC!GGC	4	1180; 1954; 3237; 3520
PdmI	GAANN!NNTTC	0	
PfeI	G!AWTC	5	3220; 3354; 3464; 3501; 4679
Pfl23II	C!GTACG	0	
PfIFI	GACN!NNGTC	1	2853
PfIMI	CCANNNN!NTGG	0	
PfoI	T!CCNGGA	1	3510
PhoI	GG!CC	32	84; 277; 655; 682; 740; 824; 1067; 1091; 1145; 1159; 1178; 1324; 1334; 1367; 1381; 1701; 1843; 2498; 2504; 2513; 2556; 2643; 2817; 3208; 3235; 3744; 3801; 3834; 4179; 4613; 4631; 4642
PinAI	A!CCGGT	1	666
PlaDI	CATCAGNNNNNNNNNNNNNNNNNN!	1	3116
PlaDI	!NNNNNNNNNNNNNNNNNNCTGATG	3	1133; 2681; 2936
PleI	GAGTCNNNN!	2	1786; 2218
PleI	!NNNNNGACTC	6	404; 598; 1380; 1794; 3400; 4277
Ple19I	CGAT!CG	0	
PmaCI	CAC!GTG	0	
PmeI	GTTT!AAAC	0	
PmlI	CAC!GTG	0	
PpiI	GAACNNNNNCTCNNNNNNNNNNNN!	1	1817

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
PpiI	!NNNNNNNNGAGNNNNNGTTC	1	3947
PpiI	GAGNNNNNGTTCNNNNNNNNNNNN!	1	3979
PpiI	!NNNNNNNNGAACNNNNNNCTC	1	1785
PpsI	GAGTCNNNN!	2	1786; 2218
PpsI	!NNNNNGACTC	6	404; 598; 1380; 1794; 3400; 4277
Ppu10I	A!TGCAT	3	2303; 2375; 4706
Ppu21I	YAC!GTR	4	340; 894; 1851; 3039
PpuMI	RG!GWCCY	0	
PscI	A!CATGT	1	4653
PshAI	GACNN!NNGTC	0	
PshBI	AT!TAAT	1	7
PsiI	TTA!TAA	2	1518; 1723
Psp03I	GGWC!C	3	1266; 3254; 3699
Psp5II	RG!GWCCY	0	
Psp6I	!CCWGG	17	88; 281; 791; 943; 992; 1004; 1019; 1040; 2269; 2324; 2341; 3120; 3699; 3802; 4492; 4505; 4626
Psp1406I	AA!CGTT	0	
Psp124BI	GAGCT!C	1	620
PspCI	CAC!GTG	0	
PspEI	G!GTNACC	0	
PspGI	!CCWGG	17	88; 281; 791; 943; 992; 1004; 1019; 1040; 2269; 2324; 2341; 3120; 3699; 3802; 4492; 4505; 4626
PspLI	C!GTACG	0	
PspN4I	GGN!NCC	25	467; 647; 655; 662; 729; 789; 825; 873; 1068; 1100; 1107; 1183; 1890; 1911; 1923; 2114; 2275; 2347; 2736; 2771; 3619; 3698; 3743; 4586; 4625
PspOMI	G!GGCCC	1	653
PspOMII	CGCCCARNNNNNNNNNNNNNNNNNNNN!	3	125; 2465; 3464
PspOMII	!NNNNNNNNNNNNNNNNNNNYTGGGCG	1	2867
PspPI	G!GNCC	15	83; 276; 654; 823; 1066; 1158; 1263; 1332; 1365; 1842; 3251; 3696; 3742; 3800; 3833
PspPPI	RG!GWCCY	0	
PspPRI	CCYAGNNNNNNNNNNNNNNNN!	3	2288; 2360; 3866
PspPRI	!NNNNNNNNNNNNNNCTGRGG	2	2201; 3396
PspXI	VC!TCGAGB	0	
PsrI	GAACNNNNNTACNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGTANNNNNNGTTC	0	
PsrI	GTANNNNNNGTTCNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGAACNNNNNNNTAC	0	
PssI	RGGNC!CY	1	3836
PstI	CTGCA!G	1	638
PstNI	CAGNN!CTG	3	1152; 3836; 4244
PsuI	R!GATCY	11	585; 609; 660; 1037; 2906; 3152; 3544; 3903; 3915; 4001; 4012
PsyI	GACN!NNGTC	1	2853
PteI	G!CGCGC	0	
PvuI	CGAT!CG	0	
PvuII	CAG!CTG	2	2233; 2841
RcaI	T!CATGA	2	2161; 3933
RceI	CATCGACNNNNNNNNNNNNNNNNNN!	1	3250
RceI	!NNNNNNNNNNNNNNNNNGTCGATG	0	
RgaI	GCGAT!CGC	0	
RigI	GGCCGG!CC	0	
RleAI	CCCACANNNNNNNNNNNN!	1	1464
RleAI	!NNNNNNNNNTGTGGG	0	
RpaBI	CCCGCAGNNNNNNNNNNNNNNNNNN!	0	
RpaBI	!NNNNNNNNNNNNNNNNNNCTGCGGG	0	
RpaB5I	CGRGGACNNNNNNNNNNNNNNNNNN!	2	992; 1286
RpaB5I	!NNNNNNNNNNNNNNNNNGTCCYCG	0	
RruI	TCG!CGA	0	
RsaI	GT!AC	13	219; 244; 299; 332; 383; 540; 647; 868; 892; 1027; 1120; 1318; 3041
RsaNI	G!TAC	13	218; 243; 298; 331; 382; 539; 646; 867; 891; 1026; 1119; 1317; 3040
RseI	CAYNN!NNRTG	2	365; 3172
RsrII	CG!GWCCG	1	3251
Rsr2I	CG!GWCCG	1	3251



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SacI	GAGCT!C	1	620
SacII	CCGC!GG	1	652
SalI	G!TCGAC	1	639
SapI	GCTCTTCN!	0	
SapI	!NNNNGAAGAGC	2	3079; 3289
SaqAI	T!TAA	15	7; 1436; 1497; 1618; 1639; 1650; 1662; 1673; 1690; 1788; 2059; 3878; 3892; 3897; 3949
SatI	GC!NGC	39	822; 975; 1092; 1138; 1143; 1176; 1325; 1335; 1349; 1379; 1382; 1512; 2031; 2053; 2067; 2505; 2644; 2696; 2707; 2797; 2802; 2839; 2880; 2967; 2970; 2973; 3209; 3305; 3346; 3360; 3474; 3813; 3828; 4039; 4245; 4248; 4313; 4456; 4611
Sau96I	G!GNCC	15	83; 276; 654; 823; 1066; 1158; 1263; 1332; 1365; 1842; 3251; 3696; 3742; 3800; 3833
Sau3AI	!GATC	25	585; 609; 660; 803; 812; 1037; 1112; 1277; 1392; 2572; 2576; 2595; 2906; 2984; 3065; 3074; 3152; 3528; 3544; 3903; 3915; 3993; 4001; 4012; 4087
SbfI	CCTGCA!GG	0	
ScaI	AGT!ACT	0	
SchI	GAGTCNNNNN!	2	1787; 2219
SchI	!NNNNGACTC	6	404; 598; 1380; 1794; 3400; 4277
SciI	CTC!GAG	1	615
ScrFI	CC!NGG	26	90; 283; 657; 658; 793; 945; 994; 1006; 1021; 1042; 1103; 1172; 1247; 2271; 2326; 2343; 2739; 2899; 3122; 3512; 3701; 3804; 4276; 4494; 4507; 4628
SdaI	CCTGCA!GG	0	
SdeAI	CAGRAGNNNNNNNNNNNNNNNNNNNN!	5	819; 2313; 2385; 2554; 4496
SdeAI	!NNNNNNNNNNNNNNNNNNNNCTYCTG	3	838; 2890; 3375
SdeOSI	GACNNNNRTGANNNNNNNNNNN!	1	279
SdeOSI	!NNNNNNNNNNNTCAYNNNNNGTC	0	
SdeOSI	TCAYNNNNNGTCNNNNNNNNNNNN!	0	
SdeOSI	!NNNNNNNNNNNGACNNNNRTGA	1	245
SduI	GDGCH!C	14	620; 657; 730; 790; 1103; 1171; 1926; 2681; 2774; 2848; 3038; 3100; 3810; 4343
SeI	!CGCG	17	58; 649; 1140; 1382; 1657; 2033; 2053; 2077; 2108; 2799; 3100; 3538; 3622; 3685; 3754; 4027; 4608
SetI	ASST!	67	125; 137; 178; 261; 308; 342; 447; 552; 568; 620; 626; 812; 859; 883; 896; 946; 964; 1003; 1034; 1088; 1127; 1187; 1192; 1199; 1210; 1292; 1364; 1425; 1446; 1455; 1467; 1516; 1683; 1798; 1810; 1853; 1890; 1940; 1963; 2087; 2235; 2330; 2523; 2636; 2764; 2843; 2854; 2926; 2997; 3041; 3301; 3447; 3491; 3822; 3853; 3912; 3955; 4098; 4119; 4218; 4355; 4370; 4389; 4401; 4445; 4491; 4542
SexAI	A!CCWGGT	1	2324
SfaAI	GCGAT!CGC	0	
SfaNI	GCATCNNNNN!	9	764; 911; 1280; 1551; 2314; 2386; 3034; 3098; 3373
SfaNI	!NNNNNNNNNGATGC	7	357; 1064; 1232; 2693; 2948; 3164; 4556
SfcI	C!TRYAG	4	634; 2070; 4197; 4388
SfiI	GGCCNNNN!NGGCC	1	2510
SfoI	GGC!GCC	1	2736
Sfr274I	C!TCGAG	1	613
Sfr303I	CCGC!GG	1	652
SfuI	TT!CGAA	2	627; 3417

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SgeI	CNNGNNNNNNNNNN!	189	6; 36; 71; 97; 123; 223; 236; 252; 290; 307; 336; 373; 407; 426; 491; 548; 579; 604; 625; 662; 679; 699; 714; 735; 762; 780; 795; 819; 840; 861; 876; 900; 919; 943; 956; 978; 993; 1006; 1032; 1053; 1069; 1083; 1107; 1122; 1146; 1164; 1183; 1197; 1230; 1248; 1272; 1287; 1314; 1332; 1371; 1395; 1442; 1471; 1513; 1596; 1670; 1754; 1776; 1808; 1845; 1863; 1882; 1897; 1939; 1956; 1973; 2008; 2022; 2039; 2061; 2085; 2109; 2174; 2188; 2226; 2242; 2282; 2295; 2314; 2337; 2354; 2367; 2386; 2416; 2437; 2454; 2477; 2512; 2539; 2570; 2592; 2618; 2640; 2659; 2687; 2723; 2742; 2765; 2779; 2799; 2812; 2826; 2845; 2859; 2878; 2910; 2924; 2937; 2963; 2994; 3007; 3024; 3041; 3055; 3072; 3090; 3105; 3133; 3149; 3168; 3190; 3206; 3229; 3248; 3273; 3292; 3312; 3339; 3363; 3396; 3415; 3443; 3457; 3523; 3547; 3562; 3585; 3606; 3623; 3671; 3698; 3712; 3741; 3765; 3798; 3815; 3835; 3848; 3861; 3919; 3946; 3965; 3995; 4020; 4040; 4054; 4079; 4097; 4134; 4172; 4201; 4229; 4243; 4263; 4278; 4299; 4313; 4332; 4350; 4366; 4406; 4426; 4453; 4471; 4492; 4505; 4518; 4535; 4559; 4582; 4614; 4639; 4666; 4688
SgeI	!NNNNNNNNNNNNCNG	167	10; 45; 71; 97; 197; 226; 264; 281; 310; 347; 381; 400; 465; 522; 553; 578; 599; 636; 653; 673; 697; 718; 736; 754; 778; 802; 835; 862; 880; 904; 930; 952; 979; 1006; 1027; 1055; 1081; 1102; 1120; 1138; 1157; 1176; 1204; 1222; 1246; 1267; 1288; 1306; 1345; 1369; 1416; 1445; 1487; 1570; 1644; 1728; 1750; 1782; 1819; 1837; 1856; 1913; 1930; 1947; 1982; 2000; 2020; 2040; 2059; 2083; 2148; 2200; 2256; 2288; 2311; 2328; 2360; 2390; 2411; 2428; 2451; 2486; 2513; 2544; 2566; 2592; 2614; 2633; 2661; 2697; 2716; 2739; 2760; 2778; 2795; 2819; 2852; 2884; 2911; 2937; 2968; 2998; 3015; 3041; 3064; 3085; 3107; 3127; 3147; 3164; 3203; 3222; 3247; 3266; 3286; 3313; 3337; 3370; 3389; 3417; 3439; 3497; 3521; 3540; 3559; 3580; 3597; 3645; 3672; 3692; 3715; 3739; 3772; 3789; 3809; 3835; 3893; 3920; 3939; 3969; 3994; 4014; 4053; 4071; 4108; 4146; 4175; 4203; 4224; 4252; 4273; 4306; 4324; 4380; 4400; 4427; 4445; 4466; 4492; 4509; 4533; 4556; 4588; 4613; 4640; 4662; 4691
SgfI	GCGAT!CGC	0	
SgrAI	CR!CCGGYG	0	
SgrBI	CCGC!GG	1	652
SgrDI	CG!TCGACG	0	
SgsI	GG!CGCGCC	0	
SimI	GG!GTC	4	27; 1882; 3669; 4462
SimI	!GACCC	4	106; 3163; 3731; 3979
SinI	G!GWCC	3	1263; 3251; 3696
SlaI	C!TCGAG	1	613
SmaI	CCC!GGG	1	658
SmiI	ATTT!AAAT	0	
SmiMI	CAYNN!NNRTG	2	365; 3172
SmlI	C!TYRAG	7	613; 619; 1617; 3126; 4008; 4285; 4547
SmoI	C!TYRAG	7	613; 619; 1617; 3126; 4008; 4285; 4547
SmuI	CCCGNNNN!	10	93; 119; 286; 1065; 1233; 2057; 2412; 2433; 3629; 3761
SmuI	!NNNNNNGCGGG	6	644; 1988; 2858; 3395; 3533; 3680
SnaBI	TAC!GTA	1	340
SpeI	A!CTAGT	0	
SphI	GCATG!C	3	2305; 2377; 3140
SrfI	GCCC!GGGC	0	
Sse9I	!AATT	11	18; 629; 1485; 1549; 1627; 1653; 1664; 2311; 2383; 2475; 3893
Sse8387I	CCTGCA!GG	0	
Sse8647I	AG!GWCCCT	0	
SseBI	AGG!CCT	1	2556
SsiI	C!CGC	43	58; 86; 98; 112; 279; 507; 589; 649; 986; 1058; 1092; 1212; 1226; 1232; 1269; 1325; 1335; 1349; 1382; 2050; 2053; 2067; 2157; 2405; 2417; 2426; 2438; 2448; 2459; 2505; 2644; 2707; 3209; 3254; 3320; 3346; 3471; 3474; 3622; 3754; 4061; 4205; 4701
SsiI	G!CGG	29	370; 403; 528; 651; 821; 974; 1142; 1175; 1378; 1995; 2022; 2110; 2220; 2801; 2865; 2966; 2969; 3249; 3304; 3402; 3540; 3687; 3827; 4070; 4315; 4436; 4455; 4582; 4610
SspI	AAT!ATT	2	1643; 2196
SspDI	G!GCGCC	1	2734

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SspD5I	GGTGANNNNNNNNN!	5	376; 822; 1044; 3806; 3922
SspD5I	!NNNNNNNNNTCACC	3	932; 1851; 2912
SstI	GAGCT!C	1	620
SstII	CCGC!GG	1	652
SstE37I	CGAAGACNNNNNNNNNNNNNNNNNNNNNNNNNN!	0	
SstE37I	!NNNNNNNNNNNNNNNNNNNGTCTTCG	0	
Sth132I	CCCGNNNN!	24	92; 118; 285; 663; 914; 938; 1064; 1076; 1109; 1178; 1232; 1253; 1934; 2056; 2411; 2432; 2745; 3148; 3287; 3358; 3628; 3760; 3990; 4428
Sth132I	!NNNNNNNNCCGGG	19	15; 407; 470; 643; 1935; 1987; 2088; 2815; 2857; 2890; 3394; 3503; 3532; 3679; 3783; 3814; 4267; 4311; 4519
Sth302II	CC!GG	24	602; 658; 668; 900; 1104; 1173; 1180; 1248; 1954; 2641; 2718; 2740; 2768; 2899; 2989; 3056; 3237; 3512; 3520; 3612; 4086; 4276; 4302; 4449
StrI	C!TCGAG	1	613
StsI	GGATGNNNNNNNNNN!	4	2603; 3060; 3085; 3539
StsI	!NNNNNNNNNNNNNNNNCATCC	3	831; 888; 2407
StuI	AGG!CCT	1	2556
StyI	C!CWGG	6	360; 677; 2464; 2557; 3167; 3572
StyD4I	!CCNGG	26	88; 281; 655; 656; 791; 943; 992; 1004; 1019; 1040; 1101; 1170; 1245; 2269; 2324; 2341; 2737; 2897; 3120; 3510; 3699; 3802; 4274; 4492; 4505; 4626
SwaI	ATTT!AAAT	0	
TaaI	ACN!GT	15	76; 198; 269; 543; 581; 645; 732; 1826; 3115; 3231; 3339; 3662; 4153; 4623; 4694
TaiI	ACGT!	15	125; 137; 178; 261; 342; 447; 896; 1798; 1810; 1853; 1963; 2854; 3041; 3822; 3955
TaqI	T!CGA	20	614; 627; 640; 722; 782; 806; 815; 1259; 1274; 1884; 2575; 2848; 3004; 3028; 3064; 3226; 3417; 3462; 3717; 4555
TaqII	GACCGANNNNNNNNNNNN!	4	709; 1755; 2772; 3440
TaqII	!NNNNNNNNNTCGGTC	1	3684
TaqII	CACCCANNNNNNNNNNNN!	1	805
TaqII	!NNNNNNNNNTGGGTG	3	172; 2639; 3231
TasI	!AATT	11	18; 629; 1485; 1549; 1627; 1653; 1664; 2311; 2383; 2475; 3893
TatI	W!GTACW	5	217; 297; 330; 381; 1025
TauI	GCSG!C	25	824; 977; 1094; 1145; 1178; 1327; 1337; 1351; 1381; 1384; 2055; 2069; 2507; 2646; 2709; 2804; 2969; 2972; 3211; 3307; 3348; 3476; 3830; 4458; 4613
TfiI	G!AWTC	5	3220; 3354; 3464; 3501; 4679
TliI	C!TCGAG	1	613
TruII	T!TAA	15	7; 1436; 1497; 1618; 1639; 1650; 1662; 1673; 1690; 1788; 2059; 3878; 3892; 3897; 3949
Tru9I	T!TAA	15	7; 1436; 1497; 1618; 1639; 1650; 1662; 1673; 1690; 1788; 2059; 3878; 3892; 3897; 3949
TscAI	CASTGNN!	6	748; 1581; 2864; 3974; 4245; 4258
TseI	G!CWGC	14	1137; 1511; 2030; 2695; 2796; 2838; 2879; 2972; 3359; 3812; 4038; 4244; 4247; 4312
TsoI	TARCCANNNNNNNNNNNN!	2	1707; 2054
TsoI	!NNNNNNNNNTGGYTA	2	1512; 3264
Tsp45I	!GTSAC	3	2024; 2855; 3161
Tsp509I	!AATT	11	18; 629; 1485; 1549; 1627; 1653; 1664; 2311; 2383; 2475; 3893
TspDTI	ATGAANNNNNNNNNNNN!	4	814; 1493; 2794; 3498
TspDTI	!NNNNNNNNNTTCAT	5	26; 873; 3212; 3668; 3875
TspEI	!AATT	11	18; 629; 1485; 1549; 1627; 1653; 1664; 2311; 2383; 2475; 3893
TspGWI	ACGGANNNNNNNNNNNN!	1	3610
TspGWI	!NNNNNNNNNTCCGT	0	
TspMI	C!CCGGG	1	656
TspRI	CASTGNN!	6	748; 1581; 2864; 3974; 4245; 4258
TstI	CACNNNNNNNTCCNNNNNNNNNNNNNNNNNN!	1	867
TstI	!NNNNNNNGGANNNNNNNNGTG	0	
TstI	GGANNNNNNNGTGNNNNNNNNNNNNNNNNNN!	0	
TstI	!NNNNNNNNNCACNNNNNNNTCC	1	835
Tth111I	GACN!NNGTC	1	2853
Tth111II	CAARCANNNNNNNNNNNNN!	3	934; 1327; 4062
Tth111II	!NNNNNNNNNTGYTTG	3	3170; 4030; 4069
UnbI	!GGNCC	15	82; 275; 653; 822; 1065; 1157; 1262; 1331; 1364; 1841; 3250; 3695; 3741; 3799; 3832

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Van9II	CCANNNN!NTGG	0	
Vha464I	C!TTAAG	1	1617
VneI	G!TGCAC	1	4339
VpaK11AI	!GGWCC	3	1262; 3250; 3695
VpaK11BI	G!GWCC	3	1263; 3251; 3696
VspI	AT!TAAT	1	7
XagI	CCTNN!NNNAGG	0	
XapI	R!AATTY	4	629; 1549; 1653; 1664
XbaI	T!CTAGA	1	1389
XceI	RCATG!Y	5	867; 2305; 2377; 3140; 4657
XcmI	CCANNNNN!NNNNTGG	0	
XhoI	C!TCGAG	1	613
XhoII	R!GATCY	11	585; 609; 660; 1037; 2906; 3152; 3544; 3903; 3915; 4001; 4012
XmaI	C!CCGGG	1	656
XmaJI	C!CTAGG	2	2557; 3572
XmiI	GT!MKAC	1	640
XmnI	GAANN!NNTTC	0	
XspI	C!TAG	8	592; 1390; 1584; 2002; 2558; 3573; 3907; 4160
ZraI	GAC!GTC	4	123; 176; 259; 445
ZrmI	AGT!ACT	0	
Zsp2I	ATGCA!T	3	2307; 2379; 4710