

## pKillerRed-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	1540; 1745
AarI	CACCTGCNNNN!	1	1036
AarI	!NNNNNNNNGCAGGTG	0	
AasI	GACNNN!NNGTC	3	1828; 2784; 4573
AatI	AGG!CCT	1	2578
AatII	GACGT!C	4	125; 178; 261; 447
AbsI	CC!TCGAGG	0	
AccI	GT!MKAC	1	640
AccII	CG!CG	20	60; 651; 1091; 1244; 1316; 1334; 1406; 1681; 2057; 2077; 2101; 2132; 2823; 3124; 3562; 3646; 3709; 3778; 4051; 4632
AccIII	T!CCGGA	0	
Acc16I	TGC!GCA	1	2859
Acc36I	ACCTGCNNNN!	3	1036; 3025; 3475
Acc36I	!NNNNNNNNGCAGGT	1	2644
Acc65I	G!GTACC	1	645
AccB1I	G!GYRCC	6	465; 645; 988; 1910; 2756; 2791
AccB7I	CCANNNN!NTGG	2	851; 1101
AccBSI	CCG!CTC	2	2181; 3370
AccBSI	GAG!CGG	2	2017; 3424
AceIII	CAGCTCNNNNNNN!	1	1713
AceIII	!NNNNNNNNNNGAGCTG	3	552; 837; 1003
AciI	C!CGC	40	58; 86; 98; 112; 279; 507; 589; 649; 698; 900; 963; 1041; 1184; 1242; 1362; 1404; 2072; 2075; 2089; 2179; 2427; 2439; 2448; 2460; 2470; 2481; 2527; 2666; 2729; 3231; 3276; 3342; 3368; 3493; 3496; 3644; 3776; 4083; 4227; 4723
AciI	G!CGG	27	370; 403; 528; 651; 692; 1193; 1400; 2017; 2044; 2132; 2242; 2823; 2887; 2988; 2991; 3271; 3326; 3424; 3562; 3709; 3849; 4092; 4337; 4458; 4477; 4604; 4632
AcII	AA!CGTT	0	
AcIWI	GGATCNNNN!	8	668; 2625; 2936; 3182; 3574; 3933; 4031; 4117
AcIWI	!NNNNNGATCC	8	580; 655; 867; 1248; 3001; 3545; 3932; 4029
AcoI	Y!GGCCR	7	753; 773; 1401; 2663; 2837; 3228; 3255
AcsI	R!AATTY	4	629; 1571; 1675; 1686
AcuI	CTGAAGNNNNNNNNNNNNNNN!	2	2903; 3335
AcuI	!NNNNNNNNNNNNNNCTTCAG	1	4133
AcvI	CAC!GTG	1	1323
AcyI	GR!CGYC	7	122; 175; 258; 444; 2757; 3459; 3538
AdeI	CACNNN!GTG	4	822; 1272; 1356; 1873
AfaI	GT!AC	9	219; 244; 299; 332; 383; 540; 647; 880; 3063
AfeI	AGC!GCT	1	596
AfiI	CCNNNNN!NNGG	20	49; 851; 1101; 1203; 1335; 1769; 2095; 2487; 2738; 3282; 3563; 3595; 3727; 3762; 3812; 3844; 4197; 4476; 4642; 4660
AfII	C!TTAAG	1	1639
AfIII	A!CRYGT	3	1127; 1322; 4675
AgeI	A!CCGGT	1	666
AgsI	TTS!AA	8	726; 810; 1233; 2168; 2212; 2222; 2635; 4211
AhdI	GACNNN!NNGTC	0	
AhII	A!CTAGT	0	
AjiI	CAC!GTC	0	
AjiI	GAC!GTG	0	
AjnI	!CCWGG	12	88; 281; 929; 2291; 2346; 2363; 3142; 3721; 3824; 4514; 4527; 4648
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	2	769; 1030
AlfI	GCANNNNNNTGCNNNNNNNNNNNN!	2	2331; 2403
AlfI	!NNNNNNNNNNGCANNNNNNNTGC	2	2297; 2369
AloI	GAACNNNNNNNTCCNNNNNNNNNNNN!	1	1839
AloI	!NNNNNNNNGGANNNNNNGTTC	0	
AloI	GGANNNNNNGTTCNNNNNNNNNNNN!	0	
AloI	!NNNNNNNGAACNNNNNNNTCC	1	1807
AluI	AG!CT	19	566; 618; 624; 840; 851; 1017; 1098; 1161; 1536; 1703; 1960; 2255; 2543; 2863; 3321; 4118; 4375; 4421; 4511
AluBI	AG!CT	19	566; 618; 624; 840; 851; 1017; 1098; 1161; 1536; 1703; 1960; 2255; 2543; 2863; 3321; 4118; 4375; 4421; 4511
AlwI	GGATCNNNN!	8	668; 2625; 2936; 3182; 3574; 3933; 4031; 4117
AlwI	!NNNNNGATCC	8	580; 655; 867; 1248; 3001; 3545; 3932; 4029
Alw21I	GWGCW!C	5	620; 818; 2870; 3060; 4365
Alw26I	GTCTCN!	1	434
Alw26I	!NNNNNGAGAC	6	823; 1114; 2181; 2599; 3618; 3746
Alw44I	G!TGCAC	2	814; 4361
AlwNI	CAGNNN!CTG	2	3858; 4266
Ama87I	C!YCGRG	3	613; 656; 943
Aor13HI	T!CCGGA	0	
Aor51HI	AGC!GCT	1	596
ApaI	GGGCC!C	1	657
ApaBI	GCANNNNN!TGC	3	2325; 2397; 3859
ApaLI	G!TGCAC	2	814; 4361
ApeKI	G!CWGC	17	782; 785; 840; 1238; 1533; 2052; 2717; 2818; 2860; 2901; 2994; 3381; 3834; 4060; 4266; 4269; 4334
ApoI	R!AATTY	4	629; 1571; 1675; 1686
ApyPI	ATCGACNNNNNNNNNNNNNNNNNNNN!	3	761; 983; 3272
ApyPI	!NNNNNNNNNNNNNNNNNNNGTTCGAT	3	3066; 3719; 4557
AquII	GCCGNACNNNNNNNNNNNNNNNNNNNN!	1	3156
AquII	!NNNNNNNNNNNNNNNNNNNGTNCGGC	1	860
AquIII	GAGGAGNNNNNNNNNNNNNNNNNNNN!	1	2585
AquIII	!NNNNNNNNNNNNNNNNNNNCTCCTC	0	
AquIV	GRGGAAGNNNNNNNNNNNNNNNNNNNN!	0	
AquIV	!NNNNNNNNNNNNNNNNNNCTCCYC	2	921; 3327
ArsI	GACNNNNNNNTTYGNNNNNNNNNNNN!	0	
ArsI	!NNNNNNCRAANNNNNNGTC	0	
ArsI	CRAANNNNNNGTCNNNNNNNNNNNN!	0	
ArsI	!NNNNNNNNGACNNNNNNNTTYG	0	
AscI	GG!CGCGCC	0	
AseI	AT!TAAT	1	7
Asi256I	G!ATC	22	586; 610; 661; 873; 1254; 1415; 2595; 2599; 2618; 2929; 3007; 3088; 3097; 3175; 3551; 3567; 3926; 3938; 4016; 4024; 4035; 4110
AsiGI	A!CCGGT	1	666
AsiSI	GCGAT!CGC	0	
AspI	GACN!NNGTC	1	2875
Asp700I	GAANN!NNTTC	0	
Asp718I	G!GTACC	1	645
AspA2I	C!CTAGG	2	2579; 3594
AspEI	GACNNN!NNGTC	0	
AspLEI	GCG!C	28	597; 974; 1091; 1157; 1246; 1316; 1334; 1375; 2023; 2031; 2057; 2079; 2088; 2101; 2132; 2751; 2759; 2823; 2860; 3126; 3386; 3562; 3648; 4051; 4160; 4334; 4434; 4501
AspS9I	G!GNCC	15	83; 276; 654; 694; 948; 1078; 1141; 1206; 1261; 1864; 3273; 3718; 3764; 3822; 3855
AssI	AGT!ACT	0	
AsuII	TT!CGAA	2	627; 3439
AsuC2I	CC!SGG	7	657; 658; 1259; 2761; 2921; 3534; 4298
AsuHPI	GGTGANNNNNNNNN!	5	376; 759; 1047; 3828; 3944
AsuHPI	!NNNNNNNTCACC	7	756; 1038; 1170; 1275; 1359; 1874; 2935
AsuNHI	G!CTAGC	1	591
AvaI	C!YCGRG	3	613; 656; 943
AvaII	G!GWCC	2	3273; 3718
AviII	TGC!GCA	1	2859
AvrII	C!CTAGG	2	2579; 3594

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AxyI	CC!TNAGG	2	2237; 3869
BaeI	ACNNNNGTAYCNNNNNNNNNN!	0	
BaeI	!NNNNNNNGRTACNNNNNGT	0	
BaeI	GRTACNNNNGTNNNNNNNNNNNN!	0	
BaeI	!NNNNNNNNNACNNNNNGTAYC	0	
BaeGI	GKGCMI:C	6	657; 818; 1361; 2703; 2796; 4365
BalI	TGG!CCA	1	2839
BamHI	G!GATCC	1	660
BanI	G!GYRCC	6	465; 645; 988; 1910; 2756; 2791
BanII	GRGCY!C	6	620; 657; 890; 1948; 3122; 3832
BanIII	AT!CGAT	1	2597
BarI	GAAGNNNNNTACNNNNNNNNNN!	0	
BarI	!NNNNNNNGTANNNNNNCTTC	0	
BarI	GTANNNNNNCTTCNNNNNNNNNN!	0	
BarI	!NNNNNNNGAAGNNNNNTAC	0	
BasI	CCANNN!NTGG	2	851; 1101
BauI	C!ACGAG	2	3475; 4502
BauI	C!TCGTG	1	3349
BbeI	GGCGC!C	1	2760
Bbr7I	GAAGACNNNNNN!	0	
Bbr7I	!NNNNNNNNNNNGTCTTC	0	
BbrPI	CAC!GTG	1	1323
BbsI	GAAGACNN!	0	
BbsI	!NNNNNNGTCTTC	0	
BbuI	GCATG!C	3	2327; 2399; 3162
BbvI	GCAGCNNNNNN!	8	794; 1250; 1545; 2830; 2872; 3393; 3846; 4346
BbvI	!NNNNNNNNNNNGCTGC	7	827; 2039; 2704; 2888; 2981; 4047; 4253
Bbv12I	GWGCW!C	5	620; 818; 2870; 3060; 4365
BbvCI	CC!TCAGC	0	
BbvCI	GC!TGAGG	0	
BccI	CCATCNNNN!	10	775; 868; 1090; 1255; 1285; 1384; 1887; 2451; 2977; 3479
BccI	!NNNNNGATGG	4	1197; 1855; 2635; 3063
BceAI	ACGGCNNNNNNNNNN!	12	756; 795; 816; 897; 927; 1002; 1077; 1155; 1206; 1251; 3183; 3670
BceAI	!NNNNNNNNNNNGCCGT	5	805; 1135; 1898; 2716; 4175
Bcefl	ACGGCNNNNNNNNNN!	12	756; 795; 816; 897; 927; 1002; 1077; 1155; 1206; 1251; 3183; 3670
Bcefl	!NNNNNNNNNNNGCCGT	5	806; 1136; 1899; 2717; 4176
BcgI	CGANNNNNNTGCNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNNNGCANNNNNTCG	0	
BcgI	GCANNNNNNTCGNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNNCGANNNNNTGC	0	
BciVI	GTATCCNNNNN!	3	2186; 2976; 4477
BciVI	!NNNNNGGATAC	0	
BclI	T!GATCA	0	
BcnI	CC!SGG	7	657; 658; 1259; 2761; 2921; 3534; 4298
BcuI	A!CTAGT	0	
BdaI	TGANNNNNNTCANNNNNNNNNN!	3	1060; 1297; 4610
BdaI	!NNNNNNNNNTGANNNNNNTCA	3	1026; 1263; 4576
BfaI	C!TAG	8	592; 1412; 1606; 2024; 2580; 3595; 3929; 4182
BfiI	ACTGGGNNNNN!	1	2706
BfiI	!NNNNCCAGT	2	289; 2458
BfmI	C!TRYAG	4	634; 2092; 4219; 4410
BfoI	RGCG!Y	6	598; 1376; 2024; 2032; 2760; 4435
BfrI	C!TTAAG	1	1639
BfuI	GTATCCNNNNN!	3	2186; 2976; 4477
BfuI	!NNNNNGGATAC	0	
BfuAI	ACCTGCNNNN!	3	1036; 3025; 3475
BfuAI	!NNNNNNNNGCAGGT	1	2644
BfuCI	!GATC	22	585; 609; 660; 872; 1253; 1414; 2594; 2598; 2617; 2928; 3006; 3087; 3096; 3174; 3550; 3566; 3925; 3937; 4015; 4023; 4034; 4109
BglI	GCCNNNN!NGGC	4	90; 212; 283; 2532
BglII	A!GATCT	1	609

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BisI	GC!NGC	38	693; 783; 786; 841; 1041; 1194; 1239; 1242; 1401; 1404; 1534; 2053; 2075; 2089; 2527; 2666; 2718; 2729; 2819; 2824; 2861; 2902; 2989; 2992; 2995; 3231; 3327; 3368; 3382; 3496; 3835; 3850; 4061; 4267; 4270; 4335; 4478; 4633
BlnI	C!CTAGG	2	2579; 3594
BlpI	GC!TNAGC	0	
BlsI	GCN!GC	38	694; 784; 787; 842; 1042; 1195; 1240; 1243; 1402; 1405; 1535; 2054; 2076; 2090; 2528; 2667; 2719; 2730; 2820; 2825; 2862; 2903; 2990; 2993; 2996; 3232; 3328; 3369; 3383; 3497; 3836; 3851; 4062; 4268; 4271; 4336; 4479; 4634
BmcAI	AGT!ACT	0	
Bme18I	G!GWCC	2	3273; 3718
Bme1390I	CC!NGG	19	90; 283; 657; 658; 931; 1259; 2293; 2348; 2365; 2761; 2921; 3144; 3534; 3723; 3826; 4298; 4516; 4529; 4650
BmeRI	GACNN!NNGTC	0	
BmeT110I	C!YCGRG	3	613; 656; 943
BmgBI	CAC!GTC	0	
BmgBI	GAC!GTG	0	
BmgT120I	GG!NCC	15	84; 277; 655; 695; 949; 1079; 1142; 1207; 1262; 1865; 3274; 3719; 3765; 3823; 3856
BmiI	GGN!NCC	21	467; 647; 655; 662; 696; 990; 1080; 1143; 1912; 1933; 1945; 2136; 2297; 2369; 2758; 2793; 3641; 3720; 3765; 4608; 4647
BmrI	ACTGGGNNNNN!	1	2706
BmrI	!NNNNCCCAGT	2	289; 2458
BmrFI	CC!NGG	19	90; 283; 657; 658; 931; 1259; 2293; 2348; 2365; 2761; 2921; 3144; 3534; 3723; 3826; 4298; 4516; 4529; 4650
BmsI	GCATCNNNNN!	10	923; 965; 1052; 1373; 1573; 2336; 2408; 3056; 3120; 3395
BmsI	!NNNNNNNNNGATGC	5	357; 2715; 2970; 3186; 4578
BmtI	GCTAG!C	1	595
BmuI	ACTGGGNNNNN!	1	2706
BmuI	!NNNNCCCAGT	2	289; 2458
BoxI	GACNN!NNGTC	0	
BpiI	GAAGACNN!	0	
BpiI	!NNNNNNGTCTTC	0	
BpI	GAGNNNNNCTCNNNNNNNNNNNN!	2	2546; 3445
BpI	!NNNNNNNNGAGNNNNNCTC	2	2514; 3413
BpmI	CTGGAGNNNNNNNNNNNNNNNN!	1	3597
BpmI	!NNNNNNNNNNNNNNNCTCCAG	1	3540
Bpu10I	CC!TNAGC	1	952
Bpu10I	GC!TNAGG	0	
Bpu14I	TT!CGAA	2	627; 3439
Bpu1102I	GC!TNAGC	0	
BpuAI	GAAGACNN!	0	
BpuAI	!NNNNNNGTCTTC	0	
BpuEI	CTTGAGNNNNNNNNNNNNNNNN!	2	4051; 4590
BpuEI	!NNNNNNNNNNNNNNNCTCAAG	3	604; 3133; 4292
BpuMI	CC!SGG	7	657; 658; 1259; 2761; 2921; 3534; 4298
BpvUI	CGAT!CG	0	
BsaI	GGTCTCN!	0	
BsaI	!NNNNNGAGACC	3	823; 1114; 3746
Bsa29I	AT!CGAT	1	2597
BsaAI	YAC!GTR	4	340; 1323; 1873; 3061
BsaBI	GATNN!NNATC	2	1419; 2616
BsaHI	GR!CGYC	7	122; 175; 258; 444; 2757; 3459; 3538
BsaJI	C!CNNGG	23	360; 649; 656; 677; 798; 929; 944; 1137; 1257; 2291; 2363; 2486; 2521; 2530; 2579; 2920; 3189; 3594; 3721; 3722; 3824; 3825; 4515
BsaMI	GAATGCN!	1	1508
BsaMI	G!CATTC	1	1601
BsaWI	W!CCGGW	6	600; 666; 2788; 3632; 4322; 4469
BsaXI	ACNNNNNCTCCNNNNNNNNNN!	1	1837
BsaXI	!NNNNNNNNGGAGNNNNNNGT	0	
BsaXI	GGAGNNNNNNGTNNNNNNNNNN!	0	
BsaXI	!NNNNNNNNNACNNNNNCTCC	1	1807
BsbI	CAACACNNNNNNNNNNNNNNNNNN!	0	
BsbI	!NNNNNNNNNNNNNNNNNNGTGTTG	2	1758; 3665

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Bsc4I	CCNNNNN!NNGG	20	49; 851; 1101; 1203; 1335; 1769; 2095; 2487; 2738; 3282; 3563; 3595; 3727; 3762; 3812; 3844; 4197; 4476; 4642; 4660
BscAI	GCATCNNNN!	10	922; 964; 1051; 1372; 1572; 2335; 2407; 3055; 3119; 3394
BscAI	!NNNNNNGATGC	5	360; 2718; 2973; 3189; 4581
BseI	ACTGGN!	3	2701; 2902; 4148
BseI	C!CAGT	6	295; 876; 1786; 2464; 4260; 4273
Bse8I	GATNN!NNATC	2	1419; 2616
Bse21I	CC!TNAGG	2	2237; 3869
Bse118I	R!CCGGY	6	666; 832; 1974; 3076; 3257; 3540
BseAI	T!CCGGA	0	
BseBI	CC!WGG	12	90; 283; 931; 2293; 2348; 2365; 3144; 3723; 3826; 4516; 4529; 4650
BseCI	AT!CGAT	1	2597
BseDI	C!CNNGG	23	360; 649; 656; 677; 798; 929; 944; 1137; 1257; 2291; 2363; 2486; 2521; 2530; 2579; 2920; 3189; 3594; 3721; 3722; 3824; 3825; 4515
Bse3DI	GCAATGNN!	1	2990
Bse3DI	!CATTGC	0	
BseGI	GGATGNN!	4	2617; 3074; 3099; 3553
BseGI	!CATCC	2	1106; 2443
BseJ	GATNN!NNATC	2	1419; 2616
BseLI	CCNNNNN!NNGG	20	49; 851; 1101; 1203; 1335; 1769; 2095; 2487; 2738; 3282; 3563; 3595; 3727; 3762; 3812; 3844; 4197; 4476; 4642; 4660
BseMI	GCAATGNN!	1	2990
BseMI	!CATTGC	0	
BseMII	CTCAGNNNNNNNNNN!	2	620; 3883
BseMII	!NNNNNNNNCTGAG	6	943; 2228; 2530; 3411; 3983; 4392
BseNI	ACTGGN!	3	2701; 2902; 4148
BseNI	C!CAGT	6	295; 876; 1786; 2464; 4260; 4273
BsePI	G!CGCGC	0	
BseRI	GAGGAGNNNNNNNNNN!	1	2575
BseRI	!NNNNNNNNCTCCTC	0	
BseSI	GKGCMI!C	6	657; 818; 1361; 2703; 2796; 4365
BseXI	GCAGCNNNNNNNN!	8	794; 1250; 1545; 2830; 2872; 3393; 3846; 4346
BseXI	!NNNNNNNNNNNGCTGC	7	827; 2039; 2704; 2888; 2981; 4047; 4253
BseX3I	C!GGCCG	2	1401; 2663
BseYI	C!CCAGC	3	2300; 2372; 4371
BseYI	G!CTGGG	1	3261
BsgI	GTGCAGNNNNNNNNNNNNNN!	0	
BsgI	!NNNNNNNNNNNNNNCTGCAC	0	
Bsh1236I	CG!CG	20	60; 651; 1091; 1244; 1316; 1334; 1406; 1681; 2057; 2077; 2101; 2132; 2823; 3124; 3562; 3646; 3709; 3778; 4051; 4632
Bsh1285I	CGRY!CG	5	671; 963; 1404; 2666; 4341
BshFI	GG!CC	32	84; 277; 655; 695; 755; 775; 950; 1079; 1142; 1165; 1196; 1208; 1262; 1342; 1403; 1723; 1865; 2520; 2526; 2535; 2578; 2665; 2839; 3230; 3257; 3766; 3823; 3856; 4201; 4635; 4653; 4664
BshNI	G!GYRCC	6	465; 645; 988; 1910; 2756; 2791
BshTI	A!CCGGT	1	666
BshVI	AT!CGAT	1	2597
BsiEI	CGRY!CG	5	671; 963; 1404; 2666; 4341
BsiHKAI	GWGCW!C	5	620; 818; 2870; 3060; 4365
BsiHKCI	C!YCGRG	3	613; 656; 943
BsiSI	C!CGG	21	601; 657; 667; 833; 1259; 1975; 2662; 2739; 2761; 2789; 2920; 3010; 3077; 3258; 3533; 3541; 3633; 4107; 4297; 4323; 4470
BsiWI	C!GTACG	0	
BsII	CCNNNNN!NNGG	20	49; 851; 1101; 1203; 1335; 1769; 2095; 2487; 2738; 3282; 3563; 3595; 3727; 3762; 3812; 3844; 4197; 4476; 4642; 4660
BsIFI	GGGACNNNNNNNNNN!	7	175; 326; 494; 1312; 2908; 3440; 3549
BsIFI	!NNNNNNNNNNNNNGTCCC	4	2273; 2345; 2409; 3704
BsmI	GAATGCN!	1	1508
BsmI	G!CATTC	1	1601
BsmAI	GTCTCN!	1	434
BsmAI	!NNNNNGAGAC	6	823; 1114; 2181; 2599; 3618; 3746
BsmBI	CGTCTCN!	0	
BsmBI	!NNNNNGAGACG	0	

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BsmFI	GGGACNNNNNNNNNN!	7	175; 326; 494; 1312; 2908; 3440; 3549
BsmFI	!NNNNNNNNNNNGTCCC	4	2273; 2345; 2409; 3704
BsnI	GG!CC	32	84; 277; 655; 695; 755; 775; 950; 1079; 1142; 1165; 1196; 1208; 1262; 1342; 1403; 1723; 1865; 2520; 2526; 2535; 2578; 2665; 2839; 3230; 3257; 3766; 3823; 3856; 4201; 4635; 4653; 4664
Bso31I	GGTCTCN!	0	
Bso31I	!NNNNNGAGACC	3	823; 1114; 3746
BsoBI	C!YCGRG	3	613; 656; 943
Bsp13I	T!CCGGA	0	
Bsp19I	C!CATGG	4	360; 677; 2486; 3189
Bsp24I	GACNNNNNTGGNNNNNNNNNN!	2	289; 3560
Bsp24I	!NNNNNNCCANNNNNGTC	2	3981; 4159
Bsp24I	CCANNNNNGTCNNNNNNNNNN!	2	4013; 4191
Bsp24I	!NNNNNNNGACNNNNNTGG	2	257; 3528
Bsp68I	TCG!CGA	0	
Bsp119I	TT!CGAA	2	627; 3439
Bsp120I	G!GGCCC	1	653
Bsp143I	!GATC	22	585; 609; 660; 872; 1253; 1414; 2594; 2598; 2617; 2928; 3006; 3087; 3096; 3174; 3550; 3566; 3925; 3937; 4015; 4023; 4034; 4109
Bsp1286I	GDGCH!C	13	620; 657; 818; 890; 1361; 1948; 2703; 2796; 2870; 3060; 3122; 3832; 4365
Bsp1407I	T!GTACA	0	
Bsp1720I	GC!TNAGC	0	
BspACI	C!CGC	40	58; 86; 98; 112; 279; 507; 589; 649; 698; 900; 963; 1041; 1184; 1242; 1362; 1404; 2072; 2075; 2089; 2179; 2427; 2439; 2448; 2460; 2470; 2481; 2527; 2666; 2729; 3231; 3276; 3342; 3368; 3493; 3496; 3644; 3776; 4083; 4227; 4723
BspACI	G!CGG	27	370; 403; 528; 651; 692; 1193; 1400; 2017; 2044; 2132; 2242; 2823; 2887; 2988; 2991; 3271; 3326; 3424; 3562; 3709; 3849; 4092; 4337; 4458; 4477; 4604; 4632
BspCNI	CTCAGNNNNNNNN!	2	619; 3882
BspCNI	!NNNNNNNCTGAG	6	944; 2229; 2531; 3412; 3984; 4393
BspDI	AT!CGAT	1	2597
BspD6I	GACTCNNNN!	6	418; 612; 1416; 1830; 3436; 4313
BspD6I	!NNNNNNGAGTC	2	1793; 2225
BspEI	T!CCGGA	0	
BspFNI	CG!CG	20	60; 651; 1091; 1244; 1316; 1334; 1406; 1681; 2057; 2077; 2101; 2132; 2823; 3124; 3562; 3646; 3709; 3778; 4051; 4632
BspHI	T!CATGA	2	2183; 3955
BspLI	GGN!NCC	21	467; 647; 655; 662; 696; 990; 1080; 1143; 1912; 1933; 1945; 2136; 2297; 2369; 2758; 2793; 3641; 3720; 3765; 4608; 4647
BspMI	ACCTGCNNNN!	3	1036; 3025; 3475
BspMI	!NNNNNNNGCAGGT	1	2644
BspOI	GCTAG!C	1	595
BspPI	GGATCNNNN!	8	668; 2625; 2936; 3182; 3574; 3933; 4031; 4117
BspPI	!NNNNNGATCC	8	580; 655; 867; 1248; 3001; 3545; 3932; 4029
BspQI	GCTCTCN!	0	
BspQI	!NNNNGAAGAGC	2	3101; 3311
BspTI	C!TTAAG	1	1639
BspT104I	TT!CGAA	2	627; 3439
BspT107I	G!GYRCC	6	465; 645; 988; 1910; 2756; 2791
BspTNI	GGTCTCN!	0	
BspTNI	!NNNNNGAGACC	3	823; 1114; 3746
BsrI	ACTGGN!	3	2701; 2902; 4148
BsrI	C!CAGT	6	295; 876; 1786; 2464; 4260; 4273
BsrBI	CCG!CTC	2	2181; 3370
BsrBI	GAG!CGG	2	2017; 3424
BsrDI	GCAATGNN!	1	2990
BsrDI	!CATTGC	0	
BsrFI	R!CCGGY	6	666; 832; 1974; 3076; 3257; 3540
BsrGI	T!GTACA	0	
BsrSI	ACTGGN!	3	2701; 2902; 4148
BsrSI	C!CAGT	6	295; 876; 1786; 2464; 4260; 4273
BssAI	R!CCGGY	6	666; 832; 1974; 3076; 3257; 3540

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BssECI	C!CNNGG	23	360; 649; 656; 677; 798; 929; 944; 1137; 1257; 2291; 2363; 2486; 2521; 2530; 2579; 2920; 3189; 3594; 3721; 3722; 3824; 3825; 4515
BssHII	G!CGCGC	0	
BssKI	!CCNGG	19	88; 281; 655; 656; 929; 1257; 2291; 2346; 2363; 2759; 2919; 3142; 3532; 3721; 3824; 4296; 4514; 4527; 4648
BssMI	!GATC	22	585; 609; 660; 872; 1253; 1414; 2594; 2598; 2617; 2928; 3006; 3087; 3096; 3174; 3550; 3566; 3925; 3937; 4015; 4023; 4034; 4109
BssNI	GR!CGYC	7	122; 175; 258; 444; 2757; 3459; 3538
BssNAI	GTA!TAC	0	
BssSI	C!ACGAG	2	3475; 4502
BssSI	C!TCGTG	1	3349
BssTII	C!CWWGG	6	360; 677; 2486; 2579; 3189; 3594
Bst6I	CTCTTCN!	0	
Bst6I	!NNNNGAAGAG	3	2224; 3101; 3311
Bst98I	C!TTAAG	1	1639
Bst1107I	GTA!TAC	0	
BstACI	GR!CGYC	7	122; 175; 258; 444; 2757; 3459; 3538
BstAFI	C!TTAAG	1	1639
BstAPI	GCANNNN!NTGC	3	2324; 2396; 3858
BstAUI	T!GTACA	0	
BstBI	TT!CGAA	2	627; 3439
Bst2BI	C!ACGAG	2	3475; 4502
Bst2BI	C!TCGTG	1	3349
BstBAI	YAC!GTR	4	340; 1323; 1873; 3061
Bst4CI	ACN!GT	16	76; 198; 269; 543; 581; 645; 969; 1050; 1848; 3137; 3253; 3361; 3684; 4175; 4645; 4716
BstC8I	GCN!NGC	37	86; 279; 593; 653; 818; 838; 886; 900; 1159; 1163; 1330; 1357; 1976; 2019; 2033; 2306; 2325; 2378; 2397; 2651; 2837; 3056; 3122; 3128; 3156; 3160; 3201; 3205; 3259; 3542; 3729; 3776; 3832; 3854; 4065; 4625; 4662
BstDEI	C!TNAG	8	606; 952; 2237; 2539; 3420; 3869; 3992; 4401
BstDSI	C!CRYGG	7	360; 649; 677; 798; 1137; 2486; 3189
BstEII	G!GTNACC	0	
BstENI	CCTNN!NNNAGG	0	
BstF5I	GGATGNN!	4	2617; 3074; 3099; 3553
BstF5I	!CATCC	2	1106; 2443
BstFNI	CG!CG	20	60; 651; 1091; 1244; 1316; 1334; 1406; 1681; 2057; 2077; 2101; 2132; 2823; 3124; 3562; 3646; 3709; 3778; 4051; 4632
BstH2I	RGCGC!Y	6	598; 1376; 2024; 2032; 2760; 4435
BstHHI	GCG!C	28	597; 974; 1091; 1157; 1246; 1316; 1334; 1375; 2023; 2031; 2057; 2079; 2088; 2101; 2132; 2751; 2759; 2823; 2860; 3126; 3386; 3562; 3648; 4051; 4160; 4334; 4434; 4501
BstKTI	GAT!C	22	588; 612; 663; 875; 1256; 1417; 2597; 2601; 2620; 2931; 3009; 3090; 3099; 3177; 3553; 3569; 3928; 3940; 4018; 4026; 4037; 4112
BstMAI	GTCTCN!	1	434
BstMAI	!NNNNGAGAC	6	823; 1114; 2181; 2599; 3618; 3746
BstMBI	!GATC	22	585; 609; 660; 872; 1253; 1414; 2594; 2598; 2617; 2928; 3006; 3087; 3096; 3174; 3550; 3566; 3925; 3937; 4015; 4023; 4034; 4109
BstMCI	CGRY!CG	5	671; 963; 1404; 2666; 4341
BstMWI	GCNNNNN!NNGC	31	90; 212; 244; 283; 376; 400; 833; 962; 1037; 1095; 1313; 1361; 1984; 2014; 2041; 2083; 2324; 2396; 2447; 2526; 2748; 2832; 2855; 2994; 3117; 3200; 3467; 3654; 3858; 4057; 4629
BstNI	CC!WGG	12	90; 283; 931; 2293; 2348; 2365; 3144; 3723; 3826; 4516; 4529; 4650
BstNSI	RCATG!Y	5	1131; 2327; 2399; 3162; 4679
BstOI	CC!WGG	12	90; 283; 931; 2293; 2348; 2365; 3144; 3723; 3826; 4516; 4529; 4650
BstPI	G!GTNACC	0	
BstPAI	GACNN!NNGTC	0	
BstSCI	!CCNGG	19	88; 281; 655; 656; 929; 1257; 2291; 2346; 2363; 2759; 2919; 3142; 3532; 3721; 3824; 4296; 4514; 4527; 4648
BstSFI	C!TRYAG	4	634; 2092; 4219; 4410
BstSLI	GKGCML!C	6	657; 818; 1361; 2703; 2796; 4365

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BstSNI	TAC!GTA	1	340
BstUI	CG!CG	20	60; 651; 1091; 1244; 1316; 1334; 1406; 1681; 2057; 2077; 2101; 2132; 2823; 3124; 3562; 3646; 3709; 3778; 4051; 4632
Bst2UI	CC!WGG	12	90; 283; 931; 2293; 2348; 2365; 3144; 3723; 3826; 4516; 4529; 4650
BstV1I	GCAGCNNNNNNNN!	8	794; 1250; 1545; 2830; 2872; 3393; 3846; 4346
BstV1I	!NNNNNNNNNNNGCTGC	7	827; 2039; 2704; 2888; 2981; 4047; 4253
BstV2I	GAAGACNN!	0	
BstV2I	!NNNNNNNGTCTTC	0	
BstXI	CCANNNNN!NTGG	0	
BstX2I	R!GATCY	11	585; 609; 660; 1253; 2928; 3174; 3566; 3925; 3937; 4023; 4034
BstYI	R!GATCY	11	585; 609; 660; 1253; 2928; 3174; 3566; 3925; 3937; 4023; 4034
BstZI	C!GGCCG	2	1401; 2663
BstZ17I	GTA!TAC	0	
BsuI	GTATCCNNNNNN!	3	2186; 2976; 4477
BsuI	!NNNNNGGATAC	0	
Bsu15I	AT!CGAT	1	2597
Bsu36I	CC!TNAGG	2	2237; 3869
BsuRI	GG!CC	32	84; 277; 655; 695; 755; 775; 950; 1079; 1142; 1165; 1196; 1208; 1262; 1342; 1403; 1723; 1865; 2520; 2526; 2535; 2578; 2665; 2839; 3230; 3257; 3766; 3823; 3856; 4201; 4635; 4653; 4664
BsuTUI	AT!CGAT	1	2597
BtgI	C!CRYGG	7	360; 649; 677; 798; 1137; 2486; 3189
BtgZI	GCGATGNNNNNNNNNN!	2	1874; 3209
BtgZI	!NNNNNNNNNNNNNNNCATCGC	3	334; 3028; 3372
BthCI	GCNG!C	38	695; 785; 788; 843; 1043; 1196; 1241; 1244; 1403; 1406; 1536; 2055; 2077; 2091; 2529; 2668; 2720; 2731; 2821; 2826; 2863; 2904; 2991; 2994; 2997; 3233; 3329; 3370; 3384; 3498; 3837; 3852; 4063; 4269; 4272; 4337; 4480; 4635
BtrI	CAC!GTC	0	
BtrI	GAC!GTG	0	
BtsI	GCAGTGNN!	0	
BtsI	!CACTGC	1	1596
BtsCI	GGATGNN!	4	2617; 3074; 3099; 3553
BtsCI	!CATCC	2	1106; 2443
BtuMI	TCG!CGA	0	
BveI	ACCTGCNNNN!	3	1036; 3025; 3475
BveI	!NNNNNNNNNGCAGGT	1	2644
Cac8I	GCN!NGC	37	86; 279; 593; 653; 818; 838; 886; 900; 1159; 1163; 1330; 1357; 1976; 2019; 2033; 2306; 2325; 2378; 2397; 2651; 2837; 3056; 3122; 3128; 3156; 3160; 3201; 3205; 3259; 3542; 3729; 3776; 3832; 3854; 4065; 4625; 4662
CaiI	CAGNNN!CTG	2	3858; 4266
CciI	T!CATGA	2	2183; 3955
CciNI	GC!GGCCGC	1	1401
CdiI	CATC!G	11	352; 738; 771; 960; 1173; 1251; 1380; 3046; 3051; 3249; 3390
CdiI	C!GATG	2	1860; 3195
CdpI	GCGGAGNNNNNNNNNNNNNNNNNNNN!	1	4629
CdpI	!NNNNNNNNNNNNNNNNNNCTCCGC	3	486; 2418; 2460
CelII	GC!TNAGC	0	
CfoI	GCG!C	28	597; 974; 1091; 1157; 1246; 1316; 1334; 1375; 2023; 2031; 2057; 2079; 2088; 2101; 2132; 2751; 2759; 2823; 2860; 3126; 3386; 3562; 3648; 4051; 4160; 4334; 4434; 4501
CfrI	Y!GGCCR	7	753; 773; 1401; 2663; 2837; 3228; 3255
Cfr9I	C!CCGGG	1	656
Cfr10I	R!CCGGY	6	666; 832; 1974; 3076; 3257; 3540
Cfr13I	G!GNCC	15	83; 276; 654; 694; 948; 1078; 1141; 1206; 1261; 1864; 3273; 3718; 3764; 3822; 3855
Cfr42I	CCGC!GG	1	652
ChaI	GATC!	22	589; 613; 664; 876; 1257; 1418; 2598; 2602; 2621; 2932; 3010; 3091; 3100; 3178; 3554; 3570; 3929; 3941; 4019; 4027; 4038; 4113
CjeI	CCANNNNNNGTNNNNNNNNNNNNNNNN!	6	699; 1289; 2574; 4014; 4114; 4192
CjeI	!NNNNNNNNNACNNNNNNNTGG	7	64; 257; 2241; 2336; 3528; 4078; 4633
CjeI	ACNNNNNNNTGGNNNNNNNNNNNNNNNN!	7	98; 291; 2275; 2370; 3562; 4112; 4667
CjeI	!NNNNNNNNCCANNNNNNGT	6	665; 1255; 2540; 3980; 4080; 4158



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
CjePI	CCANNNNNNTCNNNNNNNNNNNNNN!	2	4014; 4192
CjePI	!NNNNNNNGANNNNNNNTGG	3	257; 3528; 4127
CjePI	GANNNNNNNTGGNNNNNNNNNNNN!	3	290; 3561; 4160
CjePI	!NNNNNNCCANNNNNNNTC	2	3981; 4159
Clal	AT!CGAT	1	2597
CpoI	CG!GWCCG	1	3273
CseI	GACGCNNNNN!	3	526; 3467; 3546
CseI	!NNNNNNNNNGCGTC	3	2090; 3985; 4563
CsiI	A!CCWGGT	1	2346
CspI	CG!GWCCG	1	3273
Csp6I	G!TAC	9	218; 243; 298; 331; 382; 539; 646; 879; 3062
Csp45I	TT!CGAA	2	627; 3439
CspAI	A!CCGGT	1	666
CspCI	CAANNNNNGTGGNNNNNNNNNNNN!	1	411
CspCI	!NNNNNNNNNCCACNNNNNTTG	0	
CspCI	CCACNNNNNTTGNNNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNNCAANNNNNGTGG	1	376
CstMI	AAGGAGNNNNNNNNNNNNNNNNNN!	2	2037; 3646
CstMI	!NNNNNNNNNNNNNNNNNNCTCCTT	0	
CviAII	C!ATG	21	301; 361; 678; 717; 846; 993; 1086; 1128; 2184; 2324; 2396; 2487; 2628; 2973; 3159; 3190; 3216; 3572; 3956; 4676; 4727
CviJI	RG!CY	100	42; 84; 93; 277; 566; 618; 624; 655; 695; 755; 775; 840; 851; 858; 888; 920; 950; 1001; 1017; 1040; 1064; 1071; 1079; 1098; 1142; 1161; 1165; 1175; 1196; 1208; 1241; 1262; 1342; 1403; 1426; 1536; 1703; 1723; 1865; 1946; 1960; 1974; 2255; 2296; 2368; 2491; 2520; 2526; 2535; 2543; 2566; 2578; 2584; 2665; 2682; 2690; 2717; 2742; 2826; 2835; 2839; 2863; 2901; 2977; 2994; 3013; 3076; 3120; 3130; 3147; 3230; 3257; 3261; 3298; 3321; 3337; 3517; 3544; 3605; 3727; 3766; 3823; 3830; 3837; 3856; 3867; 4118; 4147; 4190; 4201; 4266; 4345; 4370; 4375; 4421; 4511; 4609; 4635; 4653; 4664
CviKI-1	RG!CY	100	42; 84; 93; 277; 566; 618; 624; 655; 695; 755; 775; 840; 851; 858; 888; 920; 950; 1001; 1017; 1040; 1064; 1071; 1079; 1098; 1142; 1161; 1165; 1175; 1196; 1208; 1241; 1262; 1342; 1403; 1426; 1536; 1703; 1723; 1865; 1946; 1960; 1974; 2255; 2296; 2368; 2491; 2520; 2526; 2535; 2543; 2566; 2578; 2584; 2665; 2682; 2690; 2717; 2742; 2826; 2835; 2839; 2863; 2901; 2977; 2994; 3013; 3076; 3120; 3130; 3147; 3230; 3257; 3261; 3298; 3321; 3337; 3517; 3544; 3605; 3727; 3766; 3823; 3830; 3837; 3856; 3867; 4118; 4147; 4190; 4201; 4266; 4345; 4370; 4375; 4421; 4511; 4609; 4635; 4653; 4664
CviQI	G!TAC	9	218; 243; 298; 331; 382; 539; 646; 879; 3062
DdeI	C!TNAG	8	606; 952; 2237; 2539; 3420; 3869; 3992; 4401
DinI	GGC!GCC	1	2758
DpnI	GA!TC	22	587; 611; 662; 874; 1255; 1416; 2596; 2600; 2619; 2930; 3008; 3089; 3098; 3176; 3552; 3568; 3927; 3939; 4017; 4025; 4036; 4111
DpnII	!GATC	22	585; 609; 660; 872; 1253; 1414; 2594; 2598; 2617; 2928; 3006; 3087; 3096; 3174; 3550; 3566; 3925; 3937; 4015; 4023; 4034; 4109
DraI	TTT!AAA	3	1459; 3901; 3920
DraII	RG!GNCCY	2	948; 3855
DraIII	CACNNN!GTG	4	822; 1272; 1356; 1873
DraRI	CAAGNACNNNNNNNNNNNNNNNNNN!	2	266; 4237
DraRI	!NNNNNNNNNNNNNNNNNGTNCCTG	0	
DrdI	GACNNN!NNGTC	3	1828; 2784; 4573
DrdIV	TACGACNNNNNNNNNNNNNNNNNN!	0	
DrdIV	!NNNNNNNNNNNNNNNNNGTCGTA	1	476
DriI	GACNNN!NNGTC	0	
DseDI	GACNNN!NNGTC	3	1828; 2784; 4573
EaeI	Y!GGCCR	7	753; 773; 1401; 2663; 2837; 3228; 3255
EagI	C!GGCCG	2	1401; 2663
Eam1104I	CTCTTCN!	0	
Eam1104I	!NNNNGAAGAG	3	2224; 3101; 3311
Eam1105I	GACNNN!NNGTC	0	
EarI	CTCTTCN!	0	
EarI	!NNNNGAAGAG	3	2224; 3101; 3311
EciI	GGCGANNNNNNNNNNNN!	4	2257; 3286; 4473; 4619

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
EciI	!NNNNNNNNNTCCGCC	4	496; 2428; 2449; 2470
Ecl136II	GAG!CTC	1	618
EclXI	C!GGCCG	2	1401; 2663
Eco24I	GRGCY!C	6	620; 657; 890; 1948; 3122; 3832
Eco31I	GGTCTCN!	0	
Eco31I	!NNNNNGAGACC	3	823; 1114; 3746
Eco32I	GAT!ATC	0	
Eco47I	G!GWCC	2	3273; 3718
Eco47III	AGC!GCT	1	596
Eco52I	C!GGCCG	2	1401; 2663
Eco57I	CTGAAGNNNNNNNNNNNNNN!	2	2903; 3335
Eco57I	!NNNNNNNNNNNNNNCTTCAG	1	4133
Eco72I	CAC!GTG	1	1323
Eco81I	CC!TNAGG	2	2237; 3869
Eco88I	C!YCGRG	3	613; 656; 943
Eco91I	G!GTNACC	0	
Eco105I	TAC!GTA	1	340
Eco130I	C!CWWGG	6	360; 677; 2486; 2579; 3189; 3594
Eco147I	AGG!CCT	1	2578
EcoHI	!CCSGG	7	655; 656; 1257; 2759; 2919; 3532; 4296
EcoICRI	GAG!CTC	1	618
Eco57MI	CTGRAGNNNNNNNNNNNNNN!	3	2903; 3335; 3597
Eco57MI	!NNNNNNNNNNNNNNCTYCAG	2	3540; 4133
EcoNI	CCTNN!NNNAGG	0	
Eco065I	G!GTNACC	0	
Eco0109I	RG!GNCCY	2	948; 3855
EcoRI	G!AATTC	1	629
EcoRII	!CCWGG	12	88; 281; 929; 2291; 2346; 2363; 3142; 3721; 3824; 4514; 4527; 4648
EcoRV	GAT!ATC	0	
EcoT14I	C!CWWGG	6	360; 677; 2486; 2579; 3189; 3594
EcoT22I	ATGCA!T	3	2329; 2401; 4732
EcoT38I	GRGCY!C	6	620; 657; 890; 1948; 3122; 3832
Eco53kl	GAG!CTC	1	618
EgeI	GGC!GCC	1	2758
EheI	GGC!GCC	1	2758
ErhI	C!CWWGG	6	360; 677; 2486; 2579; 3189; 3594
EsaBC3I	TC!GA	19	615; 628; 641; 738; 960; 978; 1215; 1251; 1907; 2598; 2871; 3027; 3051; 3087; 3249; 3440; 3485; 3740; 4578
Esp3I	CGTCTCN!	0	
Esp3I	!NNNNNGAGACG	0	
FaeI	CATG!	21	304; 364; 681; 720; 849; 996; 1089; 1131; 2187; 2327; 2399; 2490; 2631; 2976; 3162; 3193; 3219; 3575; 3959; 4679; 4730
Fail	YA!TR	57	39; 46; 50; 67; 138; 146; 234; 236; 291; 302; 310; 362; 555; 557; 679; 718; 847; 994; 1087; 1129; 1419; 1429; 1495; 1540; 1745; 2173; 2185; 2316; 2325; 2388; 2397; 2421; 2488; 2512; 2629; 2693; 2974; 2999; 3160; 3191; 3217; 3289; 3505; 3573; 3651; 3703; 3864; 3881; 3883; 3885; 3957; 4235; 4424; 4540; 4613; 4677; 4728
FalI	AAGNNNNCTTNNNNNNNNNNNN!	2	1245; 3097
FalI	!NNNNNNNNAAGNNNNCTT	2	1213; 3065
FaqI	GGGACNNNNNNNNNN!	7	175; 326; 494; 1312; 2908; 3440; 3549
FaqI	!NNNNNNNNNNNNNGTCCC	4	2273; 2345; 2409; 3704
FatI	!CATG	21	300; 360; 677; 716; 845; 992; 1085; 1127; 2183; 2323; 2395; 2486; 2627; 2972; 3158; 3189; 3215; 3571; 3955; 4675; 4726
FauI	CCC GCNNNN!	11	93; 119; 286; 705; 907; 1369; 2079; 2434; 2455; 3651; 3783
FauI	!NNNNNNNGCGGG	6	644; 2010; 2880; 3417; 3555; 3702
FauNDI	CA!TATG	1	234
FbaI	T!GATCA	0	
FblI	GT!MKAC	1	640
FmuI	GGNC!C	15	86; 279; 657; 697; 951; 1081; 1144; 1209; 1264; 1867; 3276; 3721; 3767; 3825; 3858
Fnu4HI	GC!NGC	38	693; 783; 786; 841; 1041; 1194; 1239; 1242; 1401; 1404; 1534; 2053; 2075; 2089; 2527; 2666; 2718; 2729; 2819; 2824; 2861; 2902; 2989; 2992; 2995; 3231; 3327; 3368; 3382; 3496; 3835; 3850; 4061; 4267; 4270; 4335; 4478; 4633

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
FokI	GGATGNNNNNNNNNN!	4	2624; 3081; 3106; 3560
FokI	!NNNNNNNNNNNNNNCATCC	2	1093; 2430
FriOI	GRGCY!C	6	620; 657; 890; 1948; 3122; 3832
FseI	GGCCGG!CC	0	
FspI	TGC!GCA	1	2859
FspAI	RTGC!GCAY	0	
FspBI	C!TAG	8	592; 1412; 1606; 2024; 2580; 3595; 3929; 4182
FspEI	CCNNNNNNNNNNNN!	165	56; 71; 98; 114; 128; 129; 156; 182; 220; 252; 291; 307; 333; 373; 450; 451; 482; 501; 520; 593; 614; 662; 677; 709; 735; 769; 789; 808; 834; 857; 872; 889; 903; 919; 934; 955; 976; 1005; 1023; 1041; 1062; 1081; 1095; 1123; 1137; 1156; 1171; 1194; 1210; 1242; 1260; 1276; 1290; 1317; 1333; 1356; 1373; 1389; 1417; 1440; 1479; 1493; 1634; 1729; 1753; 1776; 1799; 1817; 1839; 1860; 1879; 1898; 1927; 1948; 1962; 1988; 2076; 2102; 2151; 2192; 2210; 2249; 2265; 2303; 2360; 2375; 2432; 2452; 2466; 2483; 2497; 2534; 2549; 2592; 2675; 2742; 2773; 2793; 2808; 2853; 2867; 2933; 2947; 2966; 2982; 3023; 3043; 3090; 3140; 3156; 3176; 3201; 3221; 3244; 3271; 3289; 3315; 3355; 3381; 3405; 3461; 3475; 3503; 3546; 3567; 3602; 3646; 3734; 3758; 3780; 3800; 3816; 3837; 3851; 3870; 3954; 3974; 4002; 4017; 4051; 4093; 4120; 4135; 4180; 4204; 4218; 4240; 4266; 4286; 4310; 4336; 4384; 4403; 4422; 4448; 4483; 4528; 4558; 4572; 4623; 4637; 4662; 4678; 4699; 4728
FspEI	!NNNNNNNNNNNNNNNGG	128	8; 35; 59; 144; 166; 197; 252; 295; 347; 375; 400; 435; 463; 509; 529; 552; 586; 628; 652; 673; 725; 757; 785; 818; 837; 866; 896; 916; 971; 1003; 1046; 1084; 1124; 1147; 1175; 1220; 1244; 1281; 1321; 1364; 1385; 1428; 1528; 1597; 1627; 1705; 1754; 1776; 1804; 1840; 1885; 1914; 1950; 1969; 1997; 2017; 2080; 2103; 2211; 2243; 2261; 2290; 2333; 2362; 2473; 2502; 2545; 2566; 2594; 2627; 2647; 2672; 2699; 2724; 2746; 2774; 2800; 2821; 2872; 2893; 2911; 2959; 2995; 3051; 3076; 3100; 3129; 3152; 3176; 3202; 3224; 3243; 3268; 3308; 3344; 3409; 3494; 3518; 3547; 3581; 3602; 3622; 3667; 3694; 3713; 3746; 3798; 3829; 3856; 3908; 4006; 4077; 4122; 4183; 4248; 4282; 4308; 4326; 4362; 4432; 4455; 4477; 4501; 4534; 4582; 4617; 4635; 4692
Fsp4HI	GC!NGC	38	693; 783; 786; 841; 1041; 1194; 1239; 1242; 1401; 1404; 1534; 2053; 2075; 2089; 2527; 2666; 2718; 2729; 2819; 2824; 2861; 2902; 2989; 2992; 2995; 3231; 3327; 3368; 3382; 3496; 3835; 3850; 4061; 4267; 4270; 4335; 4478; 4633
GdiII	C!GGCCR	3	753; 1401; 2663
GdiII	Y!GGCCG	5	773; 1401; 2663; 3228; 3255
GlaI	GC!GC	28	596; 973; 1090; 1156; 1245; 1315; 1333; 1374; 2022; 2030; 2056; 2078; 2087; 2100; 2131; 2750; 2758; 2822; 2859; 3125; 3385; 3561; 3647; 4050; 4159; 4333; 4433; 4500
GluI	GC!NGC	38	693; 783; 786; 841; 1041; 1194; 1239; 1242; 1401; 1404; 1534; 2053; 2075; 2089; 2527; 2666; 2718; 2729; 2819; 2824; 2861; 2902; 2989; 2992; 2995; 3231; 3327; 3368; 3382; 3496; 3835; 3850; 4061; 4267; 4270; 4335; 4478; 4633
GsaI	CCCAG!C	3	2304; 2376; 4375
GsaI	GCTGG!G	1	3265
GsuI	CTGGAGNNNNNNNNNNNNNNNN!	1	3597
GsuI	!NNNNNNNNNNNNNNCTCCAG	1	3540
HaeI	WGG!CCW	7	1165; 1342; 2578; 2839; 4201; 4653; 4664
HaeII	RGCGC!Y	6	598; 1376; 2024; 2032; 2760; 4435
HaeIII	GG!CC	32	84; 277; 655; 695; 755; 775; 950; 1079; 1142; 1165; 1196; 1208; 1262; 1342; 1403; 1723; 1865; 2520; 2526; 2535; 2578; 2665; 2839; 3230; 3257; 3766; 3823; 3856; 4201; 4635; 4653; 4664
HaeIV	GAYNNNNNRTCNNNNNNNNNNNNNN!	2	1432; 2953
HaeIV	!NNNNNNNNNGAYNNNNNNRTC	2	1398; 2919
HaeIV	GAYNNNNNRTCNNNNNNNNNNNNNN!	2	1431; 2952
HaeIV	!NNNNNNNGAYNNNNNNRTC	2	1400; 2921
HapII	C!CGG	21	601; 657; 667; 833; 1259; 1975; 2662; 2739; 2761; 2789; 2920; 3010; 3077; 3258; 3533; 3541; 3633; 4107; 4297; 4323; 4470
HgaI	GACGCNNNNN!	3	526; 3467; 3546
HgaI	!NNNNNNNNNNNGCGTC	3	2090; 3985; 4563
HhaI	GCG!C	28	597; 974; 1091; 1157; 1246; 1316; 1334; 1375; 2023; 2031; 2057; 2079; 2088; 2101; 2132; 2751; 2759; 2823; 2860; 3126; 3386; 3562; 3648; 4051; 4160; 4334; 4434; 4501

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
HinI	GR!CGYC	7	122; 175; 258; 444; 2757; 3459; 3538
HinIII	CATG!	21	304; 364; 681; 720; 849; 996; 1089; 1131; 2187; 2327; 2399; 2490; 2631; 2976; 3162; 3193; 3219; 3575; 3959; 4679; 4730
Hin4I	GAYNNNNNVTCNNNNNNNNNNNN!	2	1431; 2952
Hin4I	!NNNNNNNGABNNNNNRTC	3	1399; 2920; 2950
Hin4I	GABNNNNNRTCNNNNNNNNNNNN!	3	1431; 2952; 2982
Hin4I	!NNNNNNNGAYNNNNNVTC	2	1399; 2920
Hin6I	G!CGC	28	595; 972; 1089; 1155; 1244; 1314; 1332; 1373; 2021; 2029; 2055; 2077; 2086; 2099; 2130; 2749; 2757; 2821; 2858; 3124; 3384; 3560; 3646; 4049; 4158; 4332; 4432; 4499
HinPII	G!CGC	28	595; 972; 1089; 1155; 1244; 1314; 1332; 1373; 2021; 2029; 2055; 2077; 2086; 2099; 2130; 2749; 2757; 2821; 2858; 3124; 3384; 3560; 3646; 4049; 4158; 4332; 4432; 4499
HincII	GTY!RAC	2	641; 1520
HindII	GTY!RAC	2	641; 1520
HindIII	A!AGCTT	1	622
HinfI	G!ANTC	13	410; 604; 1408; 1800; 1822; 2232; 3242; 3376; 3428; 3486; 3523; 4305; 4701
HpaI	GTT!AAC	1	1520
HpaII	C!CGG	21	601; 657; 667; 833; 1259; 1975; 2662; 2739; 2761; 2789; 2920; 3010; 3077; 3258; 3533; 3541; 3633; 4107; 4297; 4323; 4470
HphI	GGTGANNNNNNNN!	5	376; 759; 1047; 3828; 3944
HphI	!NNNNNNNTCACC	7	756; 1038; 1170; 1275; 1359; 1874; 2935
Hpy8I	GTN!NAC	14	201; 539; 577; 641; 750; 764; 816; 1053; 1104; 1520; 1804; 1821; 1876; 4363
Hpy99I	CGWCG!	16	645; 742; 781; 913; 988; 1063; 1078; 1192; 1390; 2847; 2875; 3169; 3184; 3461; 3846; 4579
Hpy166II	GTN!NAC	14	201; 539; 577; 641; 750; 764; 816; 1053; 1104; 1520; 1804; 1821; 1876; 4363
Hpy188I	TCN!GA	13	585; 609; 687; 1931; 2540; 2724; 3068; 3421; 3522; 4001; 4135; 4488; 4566
Hpy188III	TC!NNGA	25	613; 708; 978; 1251; 1272; 1412; 2184; 2236; 2549; 2602; 2775; 3091; 3100; 3183; 3239; 3283; 3373; 3406; 3475; 3956; 4030; 4113; 4211; 4309; 4443
HpyAV	CCTCANNNNNN!	7	732; 900; 1176; 1239; 3402; 3509; 4188
HpyAV	!NNNNNGAAGG	7	1990; 2885; 3614; 3630; 3813; 4130; 4440
HpyCH4III	ACN!GT	16	76; 198; 269; 543; 581; 645; 969; 1050; 1848; 3137; 3253; 3361; 3684; 4175; 4645; 4716
HpyCH4IV	A!CGT	16	122; 134; 175; 258; 339; 444; 812; 1322; 1817; 1829; 1872; 1982; 2873; 3060; 3841; 3974
HpyCH4V	TG!CA	18	636; 816; 1506; 1533; 1601; 2318; 2327; 2390; 2399; 2514; 2590; 2649; 2808; 2983; 2997; 4067; 4363; 4730
HpyF3I	C!TNAG	8	606; 952; 2237; 2539; 3420; 3869; 3992; 4401
HpyF10VI	GCNNNN!NNGC	31	90; 212; 244; 283; 376; 400; 833; 962; 1037; 1095; 1313; 1361; 1984; 2014; 2041; 2083; 2324; 2396; 2447; 2526; 2748; 2832; 2855; 2994; 3117; 3200; 3467; 3654; 3858; 4057; 4629
Hsp92I	GR!CGYC	7	122; 175; 258; 444; 2757; 3459; 3538
Hsp92II	CATG!	21	304; 364; 681; 720; 849; 996; 1089; 1131; 2187; 2327; 2399; 2490; 2631; 2976; 3162; 3193; 3219; 3575; 3959; 4679; 4730
HspAI	G!CGC	28	595; 972; 1089; 1155; 1244; 1314; 1332; 1373; 2021; 2029; 2055; 2077; 2086; 2099; 2130; 2749; 2757; 2821; 2858; 3124; 3384; 3560; 3646; 4049; 4158; 4332; 4432; 4499
KasI	G!GCGCC	1	2756
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	1520
Kzo9I	!GATC	22	585; 609; 660; 872; 1253; 1414; 2594; 2598; 2617; 2928; 3006; 3087; 3096; 3174; 3550; 3566; 3925; 3937; 4015; 4023; 4034; 4109
LguI	GCTCTCN!	0	
LguI	!NNNNGAAGAGC	2	3101; 3311
LpnI	RGC!GCV	6	596; 1374; 2022; 2030; 2758; 4433

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
LpnPI	CCDGNNNNNNNNN!	65	102; 295; 614; 670; 715; 769; 846; 883; 943; 964; 1011; 1041; 1081; 1108; 1123; 1171; 1210; 1272; 1317; 1342; 1383; 1494; 1799; 1988; 2211; 2249; 2265; 2305; 2360; 2377; 2477; 2562; 2675; 2752; 2774; 2797; 2933; 2947; 2966; 3023; 3090; 3140; 3156; 3213; 3271; 3480; 3546; 3570; 3646; 3735; 3838; 3871; 4102; 4120; 4266; 4286; 4310; 4336; 4385; 4483; 4528; 4558; 4637; 4662; 4699
LpnPI	!NNNNNNNNNNNNNCHGG	53	75; 268; 552; 586; 642; 818; 837; 916; 1003; 1084; 1147; 1244; 1840; 1960; 2017; 2080; 2278; 2290; 2350; 2362; 2594; 2639; 2682; 2724; 2746; 2774; 2821; 2883; 2905; 2995; 3062; 3085; 3129; 3224; 3243; 3268; 3417; 3518; 3561; 3618; 3708; 3811; 3838; 3856; 4092; 4129; 4282; 4308; 4448; 4466; 4501; 4582; 4635
Lsp1109I	GCAGCNNNNNNNN!	8	794; 1250; 1545; 2830; 2872; 3393; 3846; 4346
Lsp1109I	!NNNNNNNNNNNNNGCTGC	7	827; 2039; 2704; 2888; 2981; 4047; 4253
LweI	GCATCNNNNNN!	10	923; 965; 1052; 1373; 1573; 2336; 2408; 3056; 3120; 3395
LweI	!NNNNNNNNNNNGATGC	5	357; 2715; 2970; 3186; 4578
MabI	A!CCWGGT	1	2346
MaeI	C!TAG	8	592; 1412; 1606; 2024; 2580; 3595; 3929; 4182
MaeII	A!CGT	16	122; 134; 175; 258; 339; 444; 812; 1322; 1817; 1829; 1872; 1982; 2873; 3060; 3841; 3974
MaeIII	!GTNAC	13	61; 148; 497; 1272; 1545; 2046; 2058; 2877; 3183; 3873; 4139; 4255; 4318
MaiI	GA!TC	22	587; 611; 662; 874; 1255; 1416; 2596; 2600; 2619; 2930; 3008; 3089; 3098; 3176; 3552; 3568; 3927; 3939; 4017; 4025; 4036; 4111
MaqI	CRTTGACNNNNNNNNNNNNNNNNNNNNNN!	4	144; 197; 466; 540
MaqI	!NNNNNNNNNNNNNNNNNNNGTCAAYG	3	157; 240; 426
MauBI	CG!CGCGCG	0	
MbiI	CCG!CTC	2	2181; 3370
MbiI	GAG!CGG	2	2017; 3424
MboI	!GATC	22	585; 609; 660; 872; 1253; 1414; 2594; 2598; 2617; 2928; 3006; 3087; 3096; 3174; 3550; 3566; 3925; 3937; 4015; 4023; 4034; 4109
MboII	GAAGANNNNNNNN!	5	2013; 2241; 3118; 3328; 3947
MboII	!NNNNNNNTCTTC	6	723; 885; 3408; 3575; 3775; 4018
McaTI	GCGC!GC	0	
MfeI	C!AATTG	1	1507
MfiI	R!GATCY	11	585; 609; 660; 1253; 2928; 3174; 3566; 3925; 3937; 4023; 4034
MhiI	GDGCH!C	13	620; 657; 818; 890; 1361; 1948; 2703; 2796; 2870; 3060; 3122; 3832; 4365
MisI	TGG!CCA	1	2839
MluI	A!CGCGT	0	
MluNI	TGG!CCA	1	2839
MlyI	GAGTCNNNNN!	2	1809; 2241
MlyI	!NNNNNGACTC	6	404; 598; 1402; 1816; 3422; 4299
Mly113I	GG!CGCC	1	2757
MmeI	TCCRACNNNNNNNNNNNNNNNNNNNN!	1	1850
MmeI	!NNNNNNNNNNNNNNNNNNNGTYGGA	2	4282; 4466
MnlI	CCTCNNNNNNN!	7	1476; 2540; 3358; 3564; 3878; 4248; 4572
MnlI	!NNNNNNNGAGG	19	541; 681; 738; 939; 1289; 1329; 1383; 1436; 1901; 2232; 2510; 2553; 2568; 2608; 2672; 2808; 3165; 3595; 4498
Mph1103I	ATGCA!T	3	2329; 2401; 4732
MreI	CG!CCGGCG	0	
MroI	T!CCGGA	0	
MroNI	G!CCGGC	3	1974; 3257; 3540
MroXI	GAANN!NNTTC	0	
MscI	TGG!CCA	1	2839
MseI	T!TAA	16	7; 1395; 1458; 1519; 1640; 1661; 1672; 1684; 1695; 1712; 1810; 2081; 3900; 3914; 3919; 3971
MslI	CAYNN!NNRTG	5	365; 769; 1030; 1048; 3194
MspI	C!CGG	21	601; 657; 667; 833; 1259; 1975; 2662; 2739; 2761; 2789; 2920; 3010; 3077; 3258; 3533; 3541; 3633; 4107; 4297; 4323; 4470
Msp20I	TGG!CCA	1	2839
MspA1I	CMG!CKG	7	651; 1098; 1161; 2255; 2863; 4092; 4337
MspCI	C!TTAAG	1	1639

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
MspJI	CNNRNNNNNNNNNN!	241	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; 698; 714; 729; 756; 769; 783; 801; 825; 840; 856; 871; 888; 911; 941; 955; 976; 990; 1005; 1018; 1040; 1054; 1080; 1093; 1107; 1122; 1136; 1150; 1164; 1199; 1233; 1255; 1270; 1284; 1298; 1316; 1333; 1347; 1361; 1375; 1401; 1417; 1430; 1445; 1464; 1481; 1494; 1535; 1549; 1562; 1580; 1618; 1633; 1651; 1692; 1716; 1736; 1754; 1775; 1798; 1830; 1845; 1867; 1885; 1898; 1919; 1936; 1949; 1962; 1978; 1991; 2021; 2036; 2061; 2079; 2092; 2107; 2131; 2145; 2169; 2194; 2210; 2248; 2264; 2303; 2317; 2331; 2359; 2375; 2389; 2403; 2432; 2445; 2466; 2475; 2497; 2527; 2543; 2561; 2591; 2614; 2638; 2662; 2681; 2709; 2735; 2751; 2764; 2787; 2801; 2821; 2834; 2848; 2867; 2881; 2894; 2910; 2925; 2938; 2954; 2969; 2985; 3010; 3029; 3045; 3058; 3071; 3089; 3103; 3117; 3133; 3155; 3171; 3190; 3212; 3228; 3251; 3270; 3284; 3300; 3314; 3334; 3350; 3363; 3385; 3418; 3432; 3452; 3465; 3479; 3533; 3546; 3569; 3582; 3601; 3618; 3645; 3681; 3714; 3733; 3758; 3779; 3806; 3819; 3836; 3850; 3865; 3881; 3941; 3966; 3982; 4004; 4017; 4031; 4062; 4076; 4101; 4119; 4134; 4147; 4166; 4179; 4194; 4223; 4242; 4260; 4285; 4300; 4319; 4335; 4354; 4372; 4388; 4402; 4421; 4448; 4471; 4493; 4512; 4527; 4540; 4557; 4577; 4604; 4617; 4636; 4661; 4684; 4698; 4711; 4728
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; 671; 688; 730; 757; 775; 799; 819; 838; 856; 881; 903; 929; 955; 979; 998; 1016; 1036; 1054; 1072; 1096; 1114; 1138; 1158; 1183; 1207; 1229; 1256; 1273; 1290; 1307; 1331; 1356; 1375; 1398; 1423; 1467; 1509; 1592; 1627; 1654; 1677; 1706; 1750; 1772; 1804; 1840; 1857; 1878; 1915; 1935; 1952; 1969; 2004; 2022; 2040; 2057; 2081; 2103; 2130; 2158; 2184; 2222; 2243; 2260; 2278; 2301; 2322; 2350; 2373; 2394; 2412; 2433; 2450; 2473; 2497; 2517; 2535; 2557; 2588; 2610; 2636; 2655; 2672; 2700; 2719; 2738; 2756; 2774; 2795; 2817; 2841; 2874; 2894; 2912; 2933; 2959; 2986; 3003; 3020; 3037; 3063; 3085; 3107; 3125; 3145; 3164; 3186; 3224; 3244; 3268; 3288; 3308; 3335; 3359; 3392; 3411; 3439; 3461; 3490; 3518; 3543; 3562; 3581; 3602; 3619; 3636; 3667; 3694; 3714; 3737; 3757; 3794; 3811; 3830; 3856; 3876; 3915; 3942; 3961; 3979; 4016; 4034; 4075; 4093; 4119; 4136; 4168; 4197; 4225; 4246; 4269; 4288; 4309; 4327; 4344; 4362; 4388; 4409; 4429; 4449; 4467; 4488; 4514; 4531; 4550; 4569; 4598; 4617; 4635; 4654; 4672; 4690; 4713
MspR9I	CC!NGG	19	90; 283; 657; 658; 931; 1259; 2293; 2348; 2365; 2761; 2921; 3144; 3534; 3723; 3826; 4298; 4516; 4529; 4650
MssI	GTTT!AAAC	0	
MunI	C!AATTG	1	1507
MvaI	CC!WGG	12	90; 283; 931; 2293; 2348; 2365; 3144; 3723; 3826; 4516; 4529; 4650
Mva1269I	GAATGCN!	1	1508
Mva1269I	G!CATTC	1	1601
MvnI	CG!CG	20	60; 651; 1091; 1244; 1316; 1334; 1406; 1681; 2057; 2077; 2101; 2132; 2823; 3124; 3562; 3646; 3709; 3778; 4051; 4632
MvrI	CGAT!CG	0	
MwoI	GCNNNNN!NNGC	31	90; 212; 244; 283; 376; 400; 833; 962; 1037; 1095; 1313; 1361; 1984; 2014; 2041; 2083; 2324; 2396; 2447; 2526; 2748; 2832; 2855; 2994; 3117; 3200; 3467; 3654; 3858; 4057; 4629
NaeI	GCC!GGC	3	1976; 3259; 3542
NarI	GG!CGCC	1	2757
NciI	CC!SGG	7	657; 658; 1259; 2761; 2921; 3534; 4298
NcoI	C!CATGG	4	360; 677; 2486; 3189
NdeI	CA!TATG	1	234
NdeII	!GATC	22	585; 609; 660; 872; 1253; 1414; 2594; 2598; 2617; 2928; 3006; 3087; 3096; 3174; 3550; 3566; 3925; 3937; 4015; 4023; 4034; 4109
NgoAVIII	GACNNNNNTGANNNNNNNNNNN!	1	280
NgoAVIII	!NNNNNNNNNNNTCANNNNNGTC	0	
NgoAVIII	TCANNNNNGTCNNNNNNNNNNNN!	0	
NgoAVIII	!NNNNNNNNNNNGACNNNNNTGA	1	244
NgoMIV	G!CCGGC	3	1974; 3257; 3540

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
NheI	G!CTAGC	1	591
NlaIII	CATG!	21	304; 364; 681; 720; 849; 996; 1089; 1131; 2187; 2327; 2399; 2490; 2631; 2976; 3162; 3193; 3219; 3575; 3959; 4679; 4730
NlaIV	GGN!NCC	21	467; 647; 655; 662; 696; 990; 1080; 1143; 1912; 1933; 1945; 2136; 2297; 2369; 2758; 2793; 3641; 3720; 3765; 4608; 4647
NlaCI	CATCACNNNNNNNNNNNNNNNNNN!	6	1068; 1305; 1389; 1589; 1904; 3496
NlaCI	!NNNNNNNNNNNNNNNNNGTGATG	2	347; 4568
Nli3877I	CYCGR!G	3	617; 660; 947
NmeAIII	GCCGAGNNNNNNNNNNNNNNNNNN!	2	2546; 2982
NmeAIII	!NNNNNNNNNNNNNNNNNNCTCGGC	1	2511
NmeDI	RCCGGYNNNNNNNN!	6	678; 844; 1986; 3088; 3269; 3552
NmeDI	!NNNNNNNNNNNNRCCGGY	6	653; 819; 1961; 3063; 3244; 3527
NmuCI	!GTSAC	4	1272; 2046; 2877; 3183
NotI	GC!GGCCGC	1	1401
NruI	TCG!CGA	0	
NsbI	TGC!GCA	1	2859
NsiI	ATGCA!T	3	2329; 2401; 4732
NspI	RCATG!Y	5	1131; 2327; 2399; 3162; 4679
NspV	TT!CGAA	2	627; 3439
OliI	CACNN!NNGTG	2	769; 1030
PabI	GTA!C	9	220; 245; 300; 333; 384; 541; 648; 881; 3064
PacI	TTAAT!TAA	0	
PaeI	GCATG!C	3	2327; 2399; 3162
PaeR7I	C!TCGAG	1	613
PagI	T!CATGA	2	2183; 3955
PalAI	GG!CGCGCC	0	
PasI	CC!CWGGG	2	3722; 3825
PauI	G!CGCGC	0	
PceI	AGG!CCT	1	2578
PciI	A!CATGT	2	1127; 4675
PciSI	GCTCTTCN!	0	
PciSI	!NNNNGAAGAGC	2	3101; 3311
Pcsi	WCGNNNN!NNNCGW	11	818; 965; 1019; 1352; 1385; 3051; 3128; 3371; 3445; 3838; 4356
PctI	GAATGCN!	1	1508
PctI	G!CATTG	1	1601
PdiI	GCC!GGC	3	1976; 3259; 3542
PdmI	GAANN!NNTTC	0	
PfeI	G!AWTC	5	3242; 3376; 3486; 3523; 4701
Pfl23II	C!GTACG	0	
PfIFI	GACN!NNGTC	1	2875
PfIMI	CCANNNN!NTGG	2	851; 1101
PfoI	T!CCNGGA	1	3532
PhoI	GG!CC	32	84; 277; 655; 695; 755; 775; 950; 1079; 1142; 1165; 1196; 1208; 1262; 1342; 1403; 1723; 1865; 2520; 2526; 2535; 2578; 2665; 2839; 3230; 3257; 3766; 3823; 3856; 4201; 4635; 4653; 4664
PinAI	A!CCGGT	1	666
PlaDI	CATCAGNNNNNNNNNNNNNNNNNN!	2	941; 3138
PlaDI	!NNNNNNNNNNNNNNNNNNCTGATG	3	1178; 2703; 2958
PleI	GAGTCNNNN!	2	1808; 2240
PleI	!NNNNNGACTC	6	404; 598; 1402; 1816; 3422; 4299
Ple19I	CGAT!CG	0	
PmaCI	CAC!GTG	1	1323
PmeI	GTTT!AAAC	0	
PmII	CAC!GTG	1	1323
PpiI	GAACNNNNNCTCNNNNNNNNNNNN!	1	1839
PpiI	!NNNNNNNNGAGNNNNNGTTC	1	3969
PpiI	GAGNNNNNGTTCNNNNNNNNNNNN!	1	4001
PpiI	!NNNNNNNGAACNNNNNCTC	1	1807
Ppsi	GAGTCNNNN!	2	1808; 2240
Ppsi	!NNNNNGACTC	6	404; 598; 1402; 1816; 3422; 4299
Ppu10I	A!TGCAT	3	2325; 2397; 4728
Ppu21I	YAC!GTR	4	340; 1323; 1873; 3061
PpuMI	RG!GWCCY	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
PscI	A!CATGT	2	1127; 4675
PshAI	GACNN!NNGTC	0	
PshBI	AT!TAAT	1	7
PsiI	TTA!TAA	2	1540; 1745
Psp03I	GGWC!C	2	3276; 3721
Psp5II	RG!GWCCY	0	
Psp6I	!CCWGG	12	88; 281; 929; 2291; 2346; 2363; 3142; 3721; 3824; 4514; 4527; 4648
Psp1406I	AA!CGTT	0	
Psp124BI	GAGCT!C	1	620
PspCI	CAC!GTG	1	1323
PspEI	G!GTNACC	0	
PspGI	!CCWGG	12	88; 281; 929; 2291; 2346; 2363; 3142; 3721; 3824; 4514; 4527; 4648
PspLI	C!GTACG	0	
PspN4I	GGN!NCC	21	467; 647; 655; 662; 696; 990; 1080; 1143; 1912; 1933; 1945; 2136; 2297; 2369; 2758; 2793; 3641; 3720; 3765; 4608; 4647
PspOMI	G!GGCCC	1	653
PspOMII	CGCCARNNNNNNNNNNNNNNNNNNNNN!	4	125; 953; 2487; 3486
PspOMII	!NNNNNNNNNNNNNNNNNNNYTGGGCG	1	2889
PspPI	G!GNCC	15	83; 276; 654; 694; 948; 1078; 1141; 1206; 1261; 1864; 3273; 3718; 3764; 3822; 3855
PspPPI	RG!GWCCY	0	
PspPRI	CCYAGNNNNNNNNNNNNNNNNNN!	3	2310; 2382; 3888
PspPRI	!NNNNNNNNNNNNNNNNCTGRGG	2	2223; 3418
PspXI	VC!TCGAGB	0	
PsrI	GAACNNNNNTACNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGTANNNNNNGTTC	0	
PsrI	GTANNNNNNGTTCNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGAACNNNNNNNTAC	0	
PssI	RGGNC!CY	2	951; 3858
PstI	CTGCA!G	1	638
PstNI	CAGNNN!CTG	2	3858; 4266
PsuI	R!GATCY	11	585; 609; 660; 1253; 2928; 3174; 3566; 3925; 3937; 4023; 4034
Psyl	GACN!NNGTC	1	2875
PteI	G!CGCGC	0	
PvuI	CGAT!CG	0	
PvuII	CAG!CTG	4	1098; 1161; 2255; 2863
RcaI	T!CATGA	2	2183; 3955
RceI	CATCGACNNNNNNNNNNNNNNNNNN!	3	761; 983; 3272
RceI	!NNNNNNNNNNNNNNNNNGTCGATG	0	
RgaI	GCGAT!CGC	0	
RigI	GGCCGG!CC	0	
RleAI	CCCACANNNNNNNNNNNNNN!	4	1141; 1280; 1366; 1486
RleAI	!NNNNNNNNNTGTGGG	0	
RpaBI	CCCGCAGNNNNNNNNNNNNNNNNNN!	0	
RpaBI	!NNNNNNNNNNNNNNNNNNCTGCGGG	0	
RpaB5I	CGRGGACNNNNNNNNNNNNNNNNNN!	0	
RpaB5I	!NNNNNNNNNNNNNNNNNGTCCYCG	0	
RruI	TCG!CGA	0	
RsaI	G!TAC	9	219; 244; 299; 332; 383; 540; 647; 880; 3063
RsaNI	G!TAC	9	218; 243; 298; 331; 382; 539; 646; 879; 3062
RseI	CAYNN!NNRTG	5	365; 769; 1030; 1048; 3194
RsrII	CG!GWCCG	1	3273
Rsr2I	CG!GWCCG	1	3273
SacI	GAGCT!C	1	620
SacII	CCGC!GG	1	652
SalI	G!TCGAC	1	639
SapI	GCTCTCN!	0	
SapI	!NNNNGAAGAGC	2	3101; 3311
SaqAI	T!TAA	16	7; 1395; 1458; 1519; 1640; 1661; 1672; 1684; 1695; 1712; 1810; 2081; 3900; 3914; 3919; 3971
SatI	GC!NGC	38	693; 783; 786; 841; 1041; 1194; 1239; 1242; 1401; 1404; 1534; 2053; 2075; 2089; 2527; 2666; 2718; 2729; 2819; 2824; 2861; 2902; 2989; 2992; 2995; 3231; 3327; 3368; 3382; 3496; 3835; 3850; 4061; 4267; 4270; 4335; 4478; 4633



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Sau96I	G!GNCC	15	83; 276; 654; 694; 948; 1078; 1141; 1206; 1261; 1864; 3273; 3718; 3764; 3822; 3855
Sau3AI	!GATC	22	585; 609; 660; 872; 1253; 1414; 2594; 2598; 2617; 2928; 3006; 3087; 3096; 3174; 3550; 3566; 3925; 3937; 4015; 4023; 4034; 4109
SbfI	CCTGCA!GG	0	
ScaI	AGT!ACT	0	
SchI	GAGTCNNNNN!	2	1809; 2241
SchI	!NNNNNGACTC	6	404; 598; 1402; 1816; 3422; 4299
SciI	CTC!GAG	1	615
ScrFI	CC!NGG	19	90; 283; 657; 658; 931; 1259; 2293; 2348; 2365; 2761; 2921; 3144; 3534; 3723; 3826; 4298; 4516; 4529; 4650
SdaI	CCTGCA!GG	0	
SdeAI	CAGRAGNNNNNNNNNNNNNNNNNNNNNN!	6	783; 957; 2335; 2407; 2576; 4518
SdeAI	!NNNNNNNNNNNNNNNNNNNNCTYCTG	2	2912; 3397
SdeOSI	GACNNNNRTGANNNNNNNNNNNNN!	1	279
SdeOSI	!NNNNNNNNNNNTCAYNNNNNGTC	0	
SdeOSI	TCAYNNNNNGTCNNNNNNNNNNNN!	0	
SdeOSI	!NNNNNNNNNNNGACNNNNRTGA	1	245
SduI	GDGCH!C	13	620; 657; 818; 890; 1361; 1948; 2703; 2796; 2870; 3060; 3122; 3832; 4365
SelI	!CGCG	20	58; 649; 1089; 1242; 1314; 1332; 1404; 1679; 2055; 2075; 2099; 2130; 2821; 3122; 3560; 3644; 3707; 3776; 4049; 4630
SetI	ASST!	65	125; 137; 178; 261; 308; 342; 447; 552; 568; 620; 626; 724; 749; 815; 842; 853; 872; 1012; 1019; 1030; 1100; 1163; 1231; 1325; 1340; 1447; 1468; 1477; 1489; 1538; 1705; 1820; 1832; 1875; 1912; 1962; 1985; 2109; 2257; 2352; 2545; 2658; 2786; 2865; 2876; 2948; 3019; 3063; 3323; 3469; 3513; 3844; 3875; 3934; 3977; 4120; 4141; 4240; 4377; 4392; 4411; 4423; 4467; 4513; 4564
SexAI	A!CCWGGT	1	2346
SfaI	GCGAT!CGC	0	
SfaNI	GCATCNNNNN!	10	923; 965; 1052; 1373; 1573; 2336; 2408; 3056; 3120; 3395
SfaNI	!NNNNNNNNNGATGC	5	357; 2715; 2970; 3186; 4578
SfcI	C!TRYAG	4	634; 2092; 4219; 4410
SfiI	GGCCNNNN!NGGCC	1	2532
SfoI	GGC!GCC	1	2758
Sfr274I	C!TCGAG	1	613
Sfr303I	CCGC!GG	1	652
SfuI	TT!CGAA	2	627; 3439
SgeI	CNNGNNNNNNNN!	191	6; 36; 71; 97; 123; 223; 236; 252; 290; 307; 336; 373; 407; 426; 491; 548; 579; 604; 625; 662; 679; 709; 729; 756; 783; 801; 825; 840; 858; 882; 897; 911; 942; 955; 981; 1005; 1026; 1040; 1062; 1080; 1098; 1111; 1131; 1150; 1164; 1209; 1233; 1255; 1270; 1284; 1299; 1316; 1333; 1347; 1368; 1382; 1401; 1417; 1464; 1493; 1535; 1618; 1692; 1776; 1798; 1830; 1867; 1885; 1904; 1919; 1961; 1978; 1995; 2030; 2044; 2061; 2083; 2107; 2131; 2196; 2210; 2248; 2264; 2304; 2317; 2336; 2359; 2376; 2389; 2408; 2438; 2459; 2476; 2499; 2534; 2561; 2592; 2614; 2640; 2662; 2681; 2709; 2745; 2764; 2787; 2801; 2821; 2834; 2848; 2867; 2881; 2900; 2932; 2946; 2959; 2985; 3016; 3029; 3046; 3063; 3077; 3094; 3112; 3127; 3155; 3171; 3190; 3212; 3228; 3251; 3270; 3295; 3314; 3334; 3361; 3385; 3418; 3437; 3465; 3479; 3545; 3569; 3584; 3607; 3628; 3645; 3693; 3720; 3734; 3763; 3787; 3820; 3837; 3857; 3870; 3883; 3941; 3968; 3987; 4017; 4042; 4062; 4076; 4101; 4119; 4156; 4194; 4223; 4251; 4265; 4285; 4300; 4321; 4335; 4354; 4372; 4388; 4428; 4448; 4475; 4493; 4514; 4527; 4540; 4557; 4581; 4604; 4636; 4661; 4688; 4710

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SgeI	!NNNNNNNNNNNNNCNNG	167	10; 45; 71; 97; 197; 226; 264; 281; 310; 347; 381; 400; 465; 522; 553; 578; 599; 636; 653; 683; 703; 730; 757; 775; 799; 819; 838; 856; 885; 916; 937; 955; 979; 1000; 1018; 1036; 1054; 1072; 1096; 1114; 1138; 1183; 1207; 1229; 1258; 1290; 1307; 1342; 1375; 1398; 1438; 1467; 1509; 1592; 1666; 1750; 1772; 1804; 1841; 1859; 1878; 1935; 1952; 1969; 2004; 2022; 2042; 2062; 2081; 2105; 2170; 2222; 2278; 2310; 2333; 2350; 2382; 2412; 2433; 2450; 2473; 2508; 2535; 2566; 2588; 2614; 2636; 2655; 2683; 2719; 2738; 2761; 2782; 2800; 2817; 2841; 2874; 2906; 2933; 2959; 2990; 3020; 3037; 3063; 3086; 3107; 3129; 3149; 3169; 3186; 3225; 3244; 3269; 3288; 3308; 3335; 3359; 3392; 3411; 3439; 3461; 3519; 3543; 3562; 3581; 3602; 3619; 3667; 3694; 3714; 3737; 3761; 3794; 3811; 3831; 3857; 3915; 3942; 3961; 3991; 4016; 4036; 4075; 4093; 4130; 4168; 4197; 4225; 4246; 4274; 4295; 4328; 4346; 4402; 4422; 4449; 4467; 4488; 4514; 4531; 4555; 4578; 4610; 4635; 4662; 4684; 4713
Sgfl	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; 1904; 3691; 4484
SimI	!GACCC	5	106; 1121; 3185; 3753; 4001
SinI	G!GWCC	2	3273; 3718
SlaI	C!TCGAG	1	613
SmaI	CCC!GGG	1	658
SmiI	ATTT!AAAT	0	
SmiMI	CAYNN!NNRTG	5	365; 769; 1030; 1048; 3194
SmlI	C!TYRAG	7	613; 619; 1639; 3148; 4030; 4307; 4569
SmoI	C!TYRAG	7	613; 619; 1639; 3148; 4030; 4307; 4569
SmuI	CCCGC!NNNN!	11	93; 119; 286; 705; 907; 1369; 2079; 2434; 2455; 3651; 3783
SmuI	!NNNNNNNGCGGG	6	644; 2010; 2880; 3417; 3555; 3702
SnaBI	TAC!GTA	1	340
SpeI	A!CTAGT	0	
SphI	GCATG!C	3	2327; 2399; 3162
SrfI	GCCC!GGGC	0	
Sse9I	!AATT	11	18; 629; 1507; 1571; 1649; 1675; 1686; 2333; 2405; 2497; 3915
Sse8387I	CCTGCA!GG	0	
Sse8647I	AG!GWCCCT	0	
SseBI	AGG!CCT	1	2578
SsiI	C!CGC	40	58; 86; 98; 112; 279; 507; 589; 649; 698; 900; 963; 1041; 1184; 1242; 1362; 1404; 2072; 2075; 2089; 2179; 2427; 2439; 2448; 2460; 2470; 2481; 2527; 2666; 2729; 3231; 3276; 3342; 3368; 3493; 3496; 3644; 3776; 4083; 4227; 4723
SsiI	G!CGG	27	370; 403; 528; 651; 692; 1193; 1400; 2017; 2044; 2132; 2242; 2823; 2887; 2988; 2991; 3271; 3326; 3424; 3562; 3709; 3849; 4092; 4337; 4458; 4477; 4604; 4632
SspI	AAT!ATT	2	1665; 2218
SspDI	G!CGGCC	1	2756
SspD5I	GGTGANNNNNNNN!	5	376; 759; 1047; 3828; 3944
SspD5I	!NNNNNNNNNTCACC	7	755; 1037; 1169; 1274; 1358; 1873; 2934
SstI	GAGCT!C	1	620
SstII	CCGC!GG	1	652
SstE37I	CGAAGACNNNNNNNNNNNNNNNNNNNNNN!	0	
SstE37I	!NNNNNNNNNNNNNNNNNGTCTTCG	0	
Sth132I	CCCGNNNN!	23	92; 118; 285; 663; 704; 906; 914; 950; 1079; 1265; 1368; 1956; 2078; 2433; 2454; 2767; 3170; 3309; 3380; 3650; 3782; 4012; 4450
Sth132I	!NNNNNNNNNCGGG	19	15; 407; 470; 643; 1957; 2009; 2110; 2837; 2879; 2912; 3416; 3525; 3554; 3701; 3805; 3836; 4289; 4333; 4541
Sth302II	CC!GG	21	602; 658; 668; 834; 1260; 1976; 2663; 2740; 2762; 2790; 2921; 3011; 3078; 3259; 3534; 3542; 3634; 4108; 4298; 4324; 4471
StrI	C!TCGAG	1	613
StsI	GGATGNNNNNNNNNN!	4	2625; 3082; 3107; 3561
StsI	!NNNNNNNNNNNNNNCATCC	2	1092; 2429
StuI	AGG!CCT	1	2578
StyI	C!CWWGG	6	360; 677; 2486; 2579; 3189; 3594

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
StyD4I	!CCNGG	19	88; 281; 655; 656; 929; 1257; 2291; 2346; 2363; 2759; 2919; 3142; 3532; 3721; 3824; 4296; 4514; 4527; 4648
SwaI	ATTT!AAAT	0	
TaaI	ACN!GT	16	76; 198; 269; 543; 581; 645; 969; 1050; 1848; 3137; 3253; 3361; 3684; 4175; 4645; 4716
TaiI	ACGT!	16	125; 137; 178; 261; 342; 447; 815; 1325; 1820; 1832; 1875; 1985; 2876; 3063; 3844; 3977
TaqI	T!CGA	19	614; 627; 640; 737; 959; 977; 1214; 1250; 1906; 2597; 2870; 3026; 3050; 3086; 3248; 3439; 3484; 3739; 4577
TaqII	GACCGANNNNNNNNNNN!	3	1777; 2794; 3462
TaqII	!NNNNNNNNNTCGGTC	1	3706
TaqII	CACCCANNNNNNNNNNN!	0	
TaqII	!NNNNNNNNNTGGGTG	3	172; 2661; 3253
TasI	!AATT	11	18; 629; 1507; 1571; 1649; 1675; 1686; 2333; 2405; 2497; 3915
TatI	W!GTACW	4	217; 297; 330; 381
TauI	GCSG!C	21	695; 1043; 1196; 1244; 1403; 1406; 2077; 2091; 2529; 2668; 2731; 2826; 2991; 2994; 3233; 3329; 3370; 3498; 3852; 4480; 4635
TfiI	G!AWTC	5	3242; 3376; 3486; 3523; 4701
ThiI	C!TCGAG	1	613
TruII	T!TAA	16	7; 1395; 1458; 1519; 1640; 1661; 1672; 1684; 1695; 1712; 1810; 2081; 3900; 3914; 3919; 3971
Tru9I	T!TAA	16	7; 1395; 1458; 1519; 1640; 1661; 1672; 1684; 1695; 1712; 1810; 2081; 3900; 3914; 3919; 3971
TscAI	CASTGNN!	5	1603; 2886; 3996; 4267; 4280
TseI	G!CWGC	17	782; 785; 840; 1238; 1533; 2052; 2717; 2818; 2860; 2901; 2994; 3381; 3834; 4060; 4266; 4269; 4334
TsoI	TARCCANNNNNNNNNNN!	2	1729; 2076
TsoI	!NNNNNNNNNTGGYTA	2	1534; 3286
Tsp45I	!GTSAC	4	1272; 2046; 2877; 3183
Tsp509I	!AATT	11	18; 629; 1507; 1571; 1649; 1675; 1686; 2333; 2405; 2497; 3915
TspDTI	ATGAANNNNNNNNNNN!	3	1515; 2816; 3520
TspDTI	!NNNNNNNNNTTCAT	6	26; 723; 1158; 3234; 3690; 3897
TspEI	!AATT	11	18; 629; 1507; 1571; 1649; 1675; 1686; 2333; 2405; 2497; 3915
TspGWI	ACGGANNNNNNNNNNN!	1	3632
TspGWI	!NNNNNNNNNTCCGT	0	
TspMI	C!CCGGG	1	656
TspRI	CASTGNN!	5	1603; 2886; 3996; 4267; 4280
TstI	CACNNNNNNNTCCNNNNNNNNNNNN!	0	
TstI	!NNNNNNNGGANNNNNNGTG	0	
TstI	GGANNNNNNGTGNNNNNNNNNNNN!	0	
TstI	!NNNNNNNNCACNNNNNNNTCC	0	
Tth111I	GACN!NNGTC	1	2875
Tth111II	CAARCANNNNNNNNNNN!	2	1303; 4084
Tth111II	!NNNNNNNNNTGYTTG	3	3192; 4052; 4091
UnbI	!GGNCC	15	82; 275; 653; 693; 947; 1077; 1140; 1205; 1260; 1863; 3272; 3717; 3763; 3821; 3854
Van9II	CCANNNN!NTGG	2	851; 1101
Vha464I	C!TTAAG	1	1639
VneI	G!TGCAC	2	814; 4361
VpaK11AI	!GGWCC	2	3272; 3717
VpaK11BI	G!GWCC	2	3273; 3718
VspI	AT!TAAT	1	7
XagI	CCTNN!NNNAGG	0	
XapI	R!AATTY	4	629; 1571; 1675; 1686
XbaI	T!CTAGA	1	1411
XceI	RCATG!Y	5	1131; 2327; 2399; 3162; 4679
XcmI	CCANNNNN!NNNNTGG	0	
XhoI	C!TCGAG	1	613
XhoII	R!GATCY	11	585; 609; 660; 1253; 2928; 3174; 3566; 3925; 3937; 4023; 4034
XmaI	C!CCGGG	1	656
XmaJI	C!CTAGG	2	2579; 3594
XmiI	GT!MKAC	1	640
XmnI	GAANN!NNTTC	0	
XspI	C!TAG	8	592; 1412; 1606; 2024; 2580; 3595; 3929; 4182
ZraI	GAC!GTC	4	123; 176; 259; 445

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
ZrmI	AGT!ACT	0	
Zsp2I	ATGCA!T	3	2329; 2401; 4732