

pFusionRed-ER vector

Table of restriction sites

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AanI	TTA!TAA	2	1577; 1782
AarI	CACCTGCNNNN!	0	
AarI	!NNNNNNNNGCAGGTG	0	
AasI	GACNNNN!NNGTC	3	1865; 2821; 4610
AatI	AGG!CCT	2	1095; 2615
AatII	GACGT!C	4	125; 178; 261; 447
AbsI	CC!TCGAGG	0	
AccI	GT!MKAC	2	1246; 1409
AccII	CG!CG	16	60; 1420; 1682; 1718; 2094; 2114; 2138; 2169; 2860; 3161; 3599; 3683; 3746; 3815; 4088; 4669
AccIII	T!CCGGA	1	1377
Acc16I	TGC!GCA	1	2896
Acc36I	ACCTGCNNNN!	2	3062; 3512
Acc36I	!NNNNNNNNGCAGGT	1	2681
Acc65I	G!GTACC	1	1414
AccB1I	G!GYRCC	7	465; 720; 780; 1414; 1947; 2793; 2828
AccB7I	CCANNNN!NTGG	1	1265
AccBSI	CCG!CTC	2	2218; 3407
AccBSI	GAG!CGG	2	2054; 3461
AceIII	CAGCTCNNNNNNN!	1	1750
AceIII	!NNNNNNNNNNGAGCTG	3	552; 666; 1377
AciI	C!CGC	36	58; 86; 98; 112; 279; 507; 589; 652; 979; 1117; 1219; 1418; 2109; 2112; 2126; 2216; 2464; 2476; 2485; 2497; 2507; 2518; 2564; 2703; 2766; 3268; 3313; 3379; 3405; 3530; 3533; 3681; 3813; 4120; 4264; 4760
AciI	G!CGG	27	370; 403; 528; 814; 1126; 1168; 1420; 2054; 2081; 2169; 2279; 2860; 2924; 3025; 3028; 3308; 3363; 3461; 3599; 3746; 3886; 4129; 4374; 4495; 4514; 4641; 4669
AclI	AA!CGTT	0	
AclWI	GGATCNNNN!	9	1437; 1446; 2662; 2973; 3219; 3611; 3970; 4068; 4154
AclWI	!NNNNNGATCC	7	580; 1201; 1424; 3038; 3582; 3969; 4066
AcoI	Y!GGCCR	6	643; 1324; 2700; 2874; 3265; 3292
AcsI	R!AATY	4	1398; 1608; 1712; 1723
AcuI	CTGAAGNNNNNNNNNNNNNNN!	3	1176; 2940; 3372
AcuI	!NNNNNNNNNNNNNCTTCAG	1	4170
AcvI	CAC!GTG	0	
AcyI	GR!CGYC	8	122; 175; 258; 444; 1243; 2794; 3496; 3575
AdeI	CACNNN!GTG	2	1316; 1910
AfaI	GT!AC	11	219; 244; 299; 332; 383; 540; 711; 861; 1113; 1416; 3100
AfeI	AGC!GCT	0	
AfiI	CCNNNNN!NNGG	21	49; 641; 777; 1056; 1122; 1265; 1806; 2132; 2524; 2775; 3319; 3600; 3632; 3764; 3799; 3849; 3881; 4234; 4513; 4679; 4697
AfiII	C!TTAAG	0	
AfiIII	A!CRYGT	2	1680; 4712
AgeI	A!CCGGT	1	656
AgsI	TTS!AA	6	743; 2205; 2249; 2259; 2672; 4248
AhdI	GACNNN!NNGTC	0	
AhlI	A!CTAGT	0	
AjiI	CAC!GTC	0	
AjiI	GAC!GTG	0	
AjnI	!CCWGG	16	88; 281; 640; 841; 985; 1000; 1129; 2328; 2383; 2400; 3179; 3758; 3861; 4551; 4564; 4685
AjuI	GAANNNNNNNTTGGNNNNNNNNNNN!	0	
AjuI	!NNNNNNCCAANNNNNNNTTC	0	
AjuI	CCAANNNNNNNTTCNNNNNNNNNNN!	0	
AjuI	!NNNNNNNGAANNNNNNNTTGG	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AleI	CACNN!NNGTG	1	669
AlfI	GCANNNNNNTGCNNNNNNNNNNNN!	2	2368; 2440
AlfI	!NNNNNNNNNNGCANNNNNNNTGC	2	2334; 2406
AloI	GAACNNNNNNNTCCNNNNNNNNNNNN!	1	1876
AloI	!NNNNNNNNGGANNNNNNGTTC	0	
AloI	GGANNNNNNGTTCNNNNNNNNNNNN!	0	
AloI	!NNNNNNNGAACNNNNNNNTCC	1	1844
AluI	AG!CT	17	566; 680; 707; 853; 1160; 1391; 1573; 1740; 1997; 2292; 2580; 2900; 3358; 4155; 4412; 4458; 4548
AluBI	AG!CT	17	566; 680; 707; 853; 1160; 1391; 1573; 1740; 1997; 2292; 2580; 2900; 3358; 4155; 4412; 4458; 4548
AlwI	GGATCNNNN!	9	1437; 1446; 2662; 2973; 3219; 3611; 3970; 4068; 4154
AlwI	!NNNNNGATCC	7	580; 1201; 1424; 3038; 3582; 3969; 4066
Alw21I	GWGCW!C	4	750; 2907; 3097; 4402
Alw26I	GTCTCN!	1	434
Alw26I	!NNNNNGAGAC	7	1098; 1188; 1287; 2218; 2636; 3655; 3783
Alw44I	G!TGCAC	2	746; 4398
AlwNI	CAGNN!CTG	2	3895; 4303
Ama87I	C!YCGRG	1	1425
Aor13HI	T!CCGGA	1	1377
Aor51HI	AGC!GCT	0	
ApaI	GGGCC!C	1	1426
ApaBI	GCANNNNN!TGC	3	2362; 2434; 3896
ApaLI	G!TGCAC	2	746; 4398
ApeKI	G!CWGC	18	605; 623; 865; 1009; 1307; 1570; 2089; 2754; 2855; 2897; 2938; 3031; 3418; 3871; 4097; 4303; 4306; 4371
ApoI	R!AATTY	4	1398; 1608; 1712; 1723
ApyPI	ATCGACNNNNNNNNNNNNNNNNNNNN!	1	3309
ApyPI	!NNNNNNNNNNNNNNNNNNNGTCGAT	3	3103; 3756; 4594
AquII	GCCGNACNNNNNNNNNNNNNNNNNNNN!	2	677; 3193
AquII	!NNNNNNNNNNNNNNNNNNNGTNCGGC	1	841
AquIII	GAGGAGNNNNNNNNNNNNNNNNNNNN!	2	1394; 2622
AquIII	!NNNNNNNNNNNNNNNNNNNCTCCTC	1	614
AquIV	GRGGAAGNNNNNNNNNNNNNNNNNNNN!	0	
AquIV	!NNNNNNNNNNNNNNNNNNCTCCYC	1	3364
ArsI	GACNNNNNTTYGNNNNNNNNNNNNN!	0	
ArsI	!NNNNNNCRAANNNNNNGTC	0	
ArsI	CRAANNNNNNGTCNNNNNNNNNNNN!	0	
ArsI	!NNNNNNNNGACNNNNNNNTTYG	0	
AscI	GG!CGCGCC	0	
AseI	AT!TAAT	1	7
Asi256I	G!ATC	22	586; 1181; 1207; 1430; 1439; 1452; 2632; 2636; 2655; 2966; 3044; 3125; 3134; 3212; 3588; 3604; 3963; 3975; 4053; 4061; 4072; 4147
AsiGI	A!CCGGT	1	656
AsiSI	GCGAT!CGC	0	
AspI	GACN!NNGTC	1	2912
Asp700I	GAANN!NNTTC	0	
Asp718I	G!GTACC	1	1414
AspA2I	C!CTAGG	2	2616; 3631
AspEI	GACNNN!NNGTC	0	
AspLEI	GCG!C	23	597; 1140; 1347; 2060; 2068; 2094; 2116; 2125; 2138; 2169; 2788; 2796; 2860; 2897; 3163; 3423; 3599; 3685; 4088; 4197; 4371; 4471; 4538
AspS9I	G!GNCC	14	83; 276; 816; 1059; 1151; 1172; 1256; 1423; 1901; 3310; 3755; 3801; 3859; 3892
AssI	AGT!ACT	0	
AsuII	TT!CGAA	1	3476
AsuC2I	CC!SGG	7	892; 1240; 1427; 2798; 2958; 3571; 4335
AsuHPI	GGTGANNNNNNNNN!	6	376; 683; 1052; 1362; 3865; 3981
AsuHPI	!NNNNNNNTCACC	3	941; 1911; 2972
AsuNHI	G!CTAGC	1	591
AvaI	C!YCGRG	1	1425
AvaII	G!GWCC	3	1256; 3310; 3755
AviII	TGC!GCA	1	2896
AvrII	C!CTAGG	2	2616; 3631

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AxyI	CC!TNAGG	3	925; 2274; 3906
BaeI	ACNNNNGTAYCNNNNNNNNNNNN!	0	
BaeI	!NNNNNNNGRTACNNNNNGT	0	
BaeI	GRTACNNNNGTNNNNNNNNNNNNNN!	0	
BaeI	!NNNNNNNNNNACNNNNNGTAYC	0	
BaeGI	GKGCMI:C	7	723; 750; 783; 1426; 2740; 2833; 4402
BalI	TGG!CCA	2	1326; 2876
BamHI	G!GATCC	1	1429
BanI	G!GYRCC	7	465; 720; 780; 1414; 1947; 2793; 2828
BanII	GRGCY!C	4	1426; 1985; 3159; 3869
BanIII	AT!CGAT	1	2634
BarI	GAAGNNNNNTACNNNNNNNNNNNN!	0	
BarI	!NNNNNNNGTANNNNNNCTTC	0	
BarI	GTANNNNNNCTTCNNNNNNNNNNNN!	0	
BarI	!NNNNNNNGAAGNNNNNNNTAC	0	
BasI	CCANNNN!NTGG	1	1265
BauI	C!ACGAG	3	1311; 3512; 4539
BauI	C!TCGTG	2	1161; 3386
BbeI	GGCGC!C	1	2797
Bbr7I	GAAGACNNNNNNNN!	1	972
Bbr7I	!NNNNNNNNNNNGTCTTC	0	
BbrPI	CAC!GTG	0	
BbsI	GAAGACNN!	1	967
BbsI	!NNNNNNGTCTTC	0	
BbuI	GCATG!C	3	2364; 2436; 3199
BbvI	GCAGCNNNNNNNN!	8	877; 1319; 1582; 2867; 2909; 3430; 3883; 4383
BbvI	!NNNNNNNNNNNGCTGC	9	592; 610; 996; 2076; 2741; 2925; 3018; 4084; 4290
Bbv12I	GWGCW!C	4	750; 2907; 3097; 4402
BbvCI	CC!TCAGC	0	
BbvCI	GC!TGAGG	0	
BccI	CCATCNNNN!	4	1924; 2488; 3014; 3516
BccI	!NNNNNGATGG	4	1347; 1892; 2672; 3100
BceAI	ACGGCNNNNNNNNNNNN!	6	878; 1022; 1073; 1139; 3220; 3707
BceAI	!NNNNNNNNNNNNNGCCGT	5	602; 630; 1935; 2753; 4212
BceFI	ACGGCNNNNNNNNNNNN!	6	878; 1022; 1073; 1139; 3220; 3707
BceFI	!NNNNNNNNNNNNNGCCGT	5	603; 631; 1936; 2754; 4213
BcgI	CGANNNNNNTGCNNNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNNNGCANNNNNNNTCG	0	
BcgI	GCANNNNNNTCGNNNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNNNCGANNNNNNTGC	0	
BciVI	GTATCCNNNNNN!	3	2223; 3013; 4514
BciVI	!NNNNNGGATAC	0	
BclI	T!GATCA	1	1451
BcnI	CC!SGG	7	892; 1240; 1427; 2798; 2958; 3571; 4335
BcuI	A!CTAGT	0	
BdaI	TGANNNNNNTCANNNNNNNNNNNN!	2	1474; 4647
BdaI	!NNNNNNNNNNNTGANNNNNNTCA	2	1440; 4613
BfaI	C!TAG	8	592; 1442; 1643; 2061; 2617; 3632; 3966; 4219
BfiI	ACTGGGNNNNN!	1	2743
BfiI	!NNNNCCCAGT	2	289; 2495
BfmI	C!TRYAG	4	1403; 2129; 4256; 4447
BfoI	RGCGC!Y	6	598; 1348; 2061; 2069; 2797; 4472
BfrI	C!TTAAG	0	
BfuI	GTATCCNNNNNN!	3	2223; 3013; 4514
BfuI	!NNNNNGGATAC	0	
BfuAI	ACCTGCNNNN!	2	3062; 3512
BfuAI	!NNNNNNNNNGCAGGT	1	2681
BfuCI	!GATC	22	585; 1180; 1206; 1429; 1438; 1451; 2631; 2635; 2654; 2965; 3043; 3124; 3133; 3211; 3587; 3603; 3962; 3974; 4052; 4060; 4071; 4146
BglI	GCCNNNN!NGGC	6	90; 212; 283; 637; 1135; 2569
BglII	A!GATCT	0	

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BisI	GC!NGC	35	606; 624; 652; 815; 866; 1010; 1127; 1308; 1571; 2090; 2112; 2126; 2564; 2703; 2755; 2766; 2856; 2861; 2898; 2939; 3026; 3032; 3268; 3364; 3405; 3419; 3533; 3872; 3887; 4098; 4304; 4307; 4372; 4515; 4670
BlnI	C!CTAGG	2	2616; 3631
BlpI	GC!TNAGC	0	
BlsI	GCN!GC	35	607; 625; 653; 816; 867; 1011; 1128; 1309; 1572; 2091; 2113; 2127; 2565; 2704; 2756; 2767; 2857; 2862; 2899; 2940; 3027; 3033; 3269; 3365; 3406; 3420; 3534; 3873; 3888; 4099; 4305; 4308; 4373; 4516; 4671
BmcAI	AGT!ACT	0	
Bme18I	G!GWCC	3	1256; 3310; 3755
Bme1390I	CC!NGG	23	90; 283; 642; 843; 892; 987; 1002; 1131; 1240; 1427; 2330; 2385; 2402; 2798; 2958; 3181; 3571; 3760; 3863; 4335; 4553; 4566; 4687
BmeRI	GACNNN!NNGTC	0	
BmeT110I	C!YCGRG	1	1425
BmgBI	CAC!GTC	0	
BmgBI	GAC!GTG	0	
BmgT120I	GG!NCC	14	84; 277; 817; 1060; 1152; 1173; 1257; 1424; 1902; 3311; 3756; 3802; 3860; 3893
BmiI	GGN!NCC	21	467; 722; 782; 1173; 1376; 1416; 1424; 1431; 1949; 1970; 1982; 2173; 2334; 2406; 2795; 2830; 3678; 3757; 3802; 4645; 4684
BmrI	ACTGGGNNNNN!	1	2743
BmrI	!NNNNCCCAGT	2	289; 2495
BmrFI	CC!NGG	23	90; 283; 642; 843; 892; 987; 1002; 1131; 1240; 1427; 2330; 2385; 2402; 2798; 2958; 3181; 3571; 3760; 3863; 4335; 4553; 4566; 4687
BmsI	GCATCNNNNN!	7	904; 1610; 2373; 2445; 3093; 3157; 3432
BmsI	!NNNNNNNNNGATGC	7	357; 1057; 1225; 2752; 3007; 3223; 4615
BmtI	GCTAG!C	1	595
BmuI	ACTGGGNNNNN!	1	2743
BmuI	!NNNNCCCAGT	2	289; 2495
BoxI	GACNN!NNGTC	1	1299
BpiI	GAAGACNN!	1	967
BpiI	!NNNNNGTCTTC	0	
BpI	GAGNNNNNCTCNNNNNNNNNNNN!	2	2583; 3482
BpI	!NNNNNNNGAGNNNNNCTC	2	2551; 3450
BpmI	CTGGAGNNNNNNNNNNNNNNNN!	1	3634
BpmI	!NNNNNNNNNNNNNNNCTCCAG	2	984; 3577
Bpu10I	CC!TNAGC	0	
Bpu10I	GC!TNAGG	0	
Bpu14I	TT!CGAA	1	3476
Bpu1102I	GC!TNAGC	0	
BpuAI	GAAGACNN!	1	967
BpuAI	!NNNNNGTCTTC	0	
BpuEI	CTTGAGNNNNNNNNNNNNNNNN!	3	1212; 4088; 4627
BpuEI	!NNNNNNNNNNNNNCTCAAG	3	1215; 3170; 4329
BpuMI	CC!SGG	7	892; 1240; 1427; 2798; 2958; 3571; 4335
BpvUI	CGAT!CG	0	
BsaI	GGTCTCN!	0	
BsaI	!NNNNNGAGACC	3	1188; 1287; 3783
Bsa29I	AT!CGAT	1	2634
BsaAI	YAC!GTR	3	340; 1910; 3098
BsaBI	GATNN!NNATC	2	1456; 2653
BsaHI	GR!CGYC	8	122; 175; 258; 444; 1243; 2794; 3496; 3575
BsaJI	C!CNNGG	21	360; 635; 667; 754; 985; 1418; 1425; 2328; 2400; 2523; 2558; 2567; 2616; 2957; 3226; 3631; 3758; 3759; 3861; 3862; 4552
BsaMI	GAATGCN!	1	1545
BsaMI	G!CATTC	1	1638
BsaWI	W!CCGGW	7	656; 1377; 1435; 2825; 3669; 4359; 4506
BsaXI	ACNNNNNCTCCNNNNNNNNNN!	1	1874
BsaXI	!NNNNNNNGGAGNNNNNGT	0	
BsaXI	GGAGNNNNNGTNNNNNNNNNN!	0	
BsaXI	!NNNNNNNNNACNNNNNCTCC	1	1844

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BsbI	CAACACNNNNNNNNNNNNNNNNNNNNNN!	0	
BsbI	!NNNNNNNNNNNNNNNNNNNGTGTG	2	1795; 3702
Bsc4I	CCNNNNN!NNGG	21	49; 641; 777; 1056; 1122; 1265; 1806; 2132; 2524; 2775; 3319; 3600; 3632; 3764; 3799; 3849; 3881; 4234; 4513; 4679; 4697
BscAI	GCATCNNNN!	7	903; 1609; 2372; 2444; 3092; 3156; 3431
BscAI	!NNNNNNGATGC	7	360; 1060; 1228; 2755; 3010; 3226; 4618
Bse1I	ACTGGN!	5	1270; 1343; 2738; 2939; 4185
Bse1I	C!CAGT	5	295; 1823; 2501; 4297; 4310
Bse8I	GATNN!NNATC	2	1456; 2653
Bse21I	CC!TNAGG	3	925; 2274; 3906
Bse118I	R!CCGGY	5	656; 2011; 3113; 3294; 3577
BseAI	T!CCGGA	1	1377
BseBI	CC!WGG	16	90; 283; 642; 843; 987; 1002; 1131; 2330; 2385; 2402; 3181; 3760; 3863; 4553; 4566; 4687
BseCI	AT!CGAT	1	2634
BseDI	C!CNNGG	21	360; 635; 667; 754; 985; 1418; 1425; 2328; 2400; 2523; 2558; 2567; 2616; 2957; 3226; 3631; 3758; 3759; 3861; 3862; 4552
Bse3DI	GCAATGNN!	1	3027
Bse3DI	!CATTGC	0	
BseGI	GGATGNN!	4	2654; 3111; 3136; 3590
BseGI	!CATCC	4	750; 838; 895; 2480
BseJI	GATNN!NNATC	2	1456; 2653
BseLI	CCNNNNN!NNGG	21	49; 641; 777; 1056; 1122; 1265; 1806; 2132; 2524; 2775; 3319; 3600; 3632; 3764; 3799; 3849; 3881; 4234; 4513; 4679; 4697
BseMI	GCAATGNN!	1	3027
BseMI	!CATTGC	0	
BseMII	CTCAGNNNNNNNNNN!	1	3920
BseMII	!NNNNNNNNCTGAG	6	916; 2265; 2567; 3448; 4020; 4429
BseNI	ACTGGN!	5	1270; 1343; 2738; 2939; 4185
BseNI	C!CAGT	5	295; 1823; 2501; 4297; 4310
BsePI	G!CGCGC	0	
BseRI	GAGGAGNNNNNNNNNN!	2	1384; 2612
BseRI	!NNNNNNNNCTCCTC	1	624
BseSI	GKGC!C	7	723; 750; 783; 1426; 2740; 2833; 4402
BseXI	GCAGCNNNNNNNN!	8	877; 1319; 1582; 2867; 2909; 3430; 3883; 4383
BseXI	!NNNNNNNNNNNGCTGC	9	592; 610; 996; 2076; 2741; 2925; 3018; 4084; 4290
BseX3I	C!GGCCG	1	2700
BseYI	C!CCAGC	4	1049; 2337; 2409; 4408
BseYI	G!CTGGG	2	1087; 3298
BsgI	GTGCAGNNNNNNNNNNNNNNNN!	0	
BsgI	!NNNNNNNNNNNNNNCTGCAC	0	
Bsh1236I	CG!CG	16	60; 1420; 1682; 1718; 2094; 2114; 2138; 2169; 2860; 3161; 3599; 3683; 3746; 3815; 4088; 4669
Bsh1285I	CGRY!CG	3	661; 2703; 4378
BshFI	GG!CC	31	84; 277; 631; 640; 645; 817; 1060; 1095; 1129; 1152; 1174; 1284; 1326; 1424; 1760; 1902; 2557; 2563; 2572; 2615; 2702; 2876; 3267; 3294; 3803; 3860; 3893; 4238; 4672; 4690; 4701
BshNI	G!GYRCC	7	465; 720; 780; 1414; 1947; 2793; 2828
BshTI	A!CCGGT	1	656
BshVI	AT!CGAT	1	2634
BsiEI	CGRY!CG	3	661; 2703; 4378
BsiHKAI	GWGCW!C	4	750; 2907; 3097; 4402
BsiHKCI	C!YCGRG	1	1425
BsiSI	C!CGG	22	657; 891; 1240; 1378; 1426; 1436; 2012; 2699; 2776; 2798; 2826; 2957; 3047; 3114; 3295; 3570; 3578; 3670; 4144; 4334; 4360; 4507
BsiWI	C!GTACG	0	
BsII	CCNNNNN!NNGG	21	49; 641; 777; 1056; 1122; 1265; 1806; 2132; 2524; 2775; 3319; 3600; 3632; 3764; 3799; 3849; 3881; 4234; 4513; 4679; 4697
BsIFI	GGGACNNNNNNNNNN!	6	175; 326; 494; 2945; 3477; 3586
BsIFI	!NNNNNNNNNNNNNGTCCC	4	2310; 2382; 2446; 3741
BsmI	GAATGCN!	1	1545
BsmI	G!CATTC	1	1638
BsmAI	GTCTCN!	1	434
BsmAI	!NNNNNGAGAC	7	1098; 1188; 1287; 2218; 2636; 3655; 3783
BsmBI	CGTCTCN!	0	

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BsmBI	!NNNNNGAGACG	1	1098
BsmFI	GGGACNNNNNNNNNN!	6	175; 326; 494; 2945; 3477; 3586
BsmFI	!NNNNNNNNNNNNNGTCCC	4	2310; 2382; 2446; 3741
BsnI	GG!CC	31	84; 277; 631; 640; 645; 817; 1060; 1095; 1129; 1152; 1174; 1284; 1326; 1424; 1760; 1902; 2557; 2563; 2572; 2615; 2702; 2876; 3267; 3294; 3803; 3860; 3893; 4238; 4672; 4690; 4701
Bso31I	GGTCTCN!	0	
Bso31I	!NNNNNGAGACC	3	1188; 1287; 3783
BsoBI	C!YCGRG	1	1425
Bsp13I	T!CCGGA	1	1377
Bsp19I	C!CATGG	4	360; 667; 2523; 3226
Bsp24I	GACNNNNNTGGNNNNNNNNNN!	2	289; 3597
Bsp24I	!NNNNNNCCANNNNNGTC	2	4018; 4196
Bsp24I	CCANNNNNGTCNNNNNNNNNNNN!	2	4050; 4228
Bsp24I	!NNNNNNNGACNNNNNTGG	2	257; 3565
Bsp68I	TCG!CGA	0	
Bsp119I	TT!CGAA	1	3476
Bsp120I	G!GGCCC	1	1422
Bsp143I	!GATC	22	585; 1180; 1206; 1429; 1438; 1451; 2631; 2635; 2654; 2965; 3043; 3124; 3133; 3211; 3587; 3603; 3962; 3974; 4052; 4060; 4071; 4146
Bsp1286I	GDGCH!C	12	723; 750; 783; 1426; 1985; 2740; 2833; 2907; 3097; 3159; 3869; 4402
Bsp1407I	T!GTACA	1	709
Bsp1720I	GC!TNAGC	0	
BspACI	C!CGC	36	58; 86; 98; 112; 279; 507; 589; 652; 979; 1117; 1219; 1418; 2109; 2112; 2126; 2216; 2464; 2476; 2485; 2497; 2507; 2518; 2564; 2703; 2766; 3268; 3313; 3379; 3405; 3530; 3533; 3681; 3813; 4120; 4264; 4760
BspACI	G!CGG	27	370; 403; 528; 814; 1126; 1168; 1420; 2054; 2081; 2169; 2279; 2860; 2924; 3025; 3028; 3308; 3363; 3461; 3599; 3746; 3886; 4129; 4374; 4495; 4514; 4641; 4669
BspCNI	CTCAGNNNNNNNN!	1	3919
BspCNI	!NNNNNNNCTGAG	6	917; 2266; 2568; 3449; 4021; 4430
BspDI	AT!CGAT	1	2634
BspD6I	GACTCNNNN!	4	418; 1867; 3473; 4350
BspD6I	!NNNNNGAGTC	3	939; 1830; 2262
BspEI	T!CCGGA	1	1377
BspFNI	CG!CG	16	60; 1420; 1682; 1718; 2094; 2114; 2138; 2169; 2860; 3161; 3599; 3683; 3746; 3815; 4088; 4669
BspHI	T!CATGA	2	2220; 3992
BspLI	GGN!NCC	21	467; 722; 782; 1173; 1376; 1416; 1424; 1431; 1949; 1970; 1982; 2173; 2334; 2406; 2795; 2830; 3678; 3757; 3802; 4645; 4684
BspMI	ACCTGCNNNN!	2	3062; 3512
BspMI	!NNNNNNNGCAGGT	1	2681
BspOI	GCTAG!C	1	595
BspPI	GGATCNNNN!	9	1437; 1446; 2662; 2973; 3219; 3611; 3970; 4068; 4154
BspPI	!NNNNNGATCC	7	580; 1201; 1424; 3038; 3582; 3969; 4066
BspQI	GCTCTCN!	0	
BspQI	!NNNNGAAGAGC	2	3138; 3348
BspTI	C!TTAAG	0	
BspT104I	TT!CGAA	1	3476
BspT107I	G!GYRCC	7	465; 720; 780; 1414; 1947; 2793; 2828
BspTNI	GGTCTCN!	0	
BspTNI	!NNNNNGAGACC	3	1188; 1287; 3783
BsrI	ACTGGN!	5	1270; 1343; 2738; 2939; 4185
BsrI	C!CAGT	5	295; 1823; 2501; 4297; 4310
BsrBI	CCG!CTC	2	2218; 3407
BsrBI	GAG!CGG	2	2054; 3461
BsrDI	GCAATGNN!	1	3027
BsrDI	!CATTGC	0	
BsrFI	R!CCGGY	5	656; 2011; 3113; 3294; 3577
BsrGI	T!GTACA	1	709
BsrSI	ACTGGN!	5	1270; 1343; 2738; 2939; 4185
BsrSI	C!CAGT	5	295; 1823; 2501; 4297; 4310

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BssAI	R!CCGGY	5	656; 2011; 3113; 3294; 3577
BssECI	C!CNNGG	21	360; 635; 667; 754; 985; 1418; 1425; 2328; 2400; 2523; 2558; 2567; 2616; 2957; 3226; 3631; 3758; 3759; 3861; 3862; 4552
BssHII	G!CGCGC	0	
BssKI	!CCNGG	23	88; 281; 640; 841; 890; 985; 1000; 1129; 1238; 1425; 2328; 2383; 2400; 2796; 2956; 3179; 3569; 3758; 3861; 4333; 4551; 4564; 4685
BssMI	!GATC	22	585; 1180; 1206; 1429; 1438; 1451; 2631; 2635; 2654; 2965; 3043; 3124; 3133; 3211; 3587; 3603; 3962; 3974; 4052; 4060; 4071; 4146
BssNI	GR!CGYC	8	122; 175; 258; 444; 1243; 2794; 3496; 3575
BssNAI	GTA!TAC	0	
BssSI	C!ACGAG	3	1311; 3512; 4539
BssSI	C!TCGTG	2	1161; 3386
BssT1I	C!CWVGG	6	360; 667; 2523; 2616; 3226; 3631
Bst6I	CTCTTCN!	0	
Bst6I	!NNNNGAAGAG	3	2261; 3138; 3348
Bst98I	C!TTAAG	0	
Bst1107I	GTA!TAC	0	
BstACI	GR!CGYC	8	122; 175; 258; 444; 1243; 2794; 3496; 3575
BstAFI	C!TTAAG	0	
BstAPI	GCANNNN!NTGC	3	2361; 2433; 3895
BstAUI	T!GTACA	1	709
BstBI	TT!CGAA	1	3476
Bst2BI	C!ACGAG	3	1311; 3512; 4539
Bst2BI	C!TCGTG	2	1161; 3386
BstBAI	YAC!GTR	3	340; 1910; 3098
Bst4CI	ACN!GT	15	76; 198; 269; 543; 581; 725; 1414; 1885; 3174; 3290; 3398; 3721; 4212; 4682; 4753
BstC8I	GCN!NGC	32	86; 279; 593; 678; 768; 972; 1422; 2013; 2056; 2070; 2343; 2362; 2415; 2434; 2688; 2874; 3093; 3159; 3165; 3193; 3197; 3238; 3242; 3296; 3579; 3766; 3813; 3869; 3891; 4102; 4662; 4699
BstDEI	C!TNAG	7	925; 2274; 2576; 3457; 3906; 4029; 4438
BstDSI	C!CRYGG	5	360; 667; 1418; 2523; 3226
BstEII	G!GTNACC	0	
BstENI	CCTNN!NNNAGG	0	
BstF5I	GGATGNN!	4	2654; 3111; 3136; 3590
BstF5I	!CATCC	4	750; 838; 895; 2480
BstFNI	CG!CG	16	60; 1420; 1682; 1718; 2094; 2114; 2138; 2169; 2860; 3161; 3599; 3683; 3746; 3815; 4088; 4669
BstH2I	RGCGC!Y	6	598; 1348; 2061; 2069; 2797; 4472
BstHHI	GCG!C	23	597; 1140; 1347; 2060; 2068; 2094; 2116; 2125; 2138; 2169; 2788; 2796; 2860; 2897; 3163; 3423; 3599; 3685; 4088; 4197; 4371; 4471; 4538
BstKTI	GAT!C	22	588; 1183; 1209; 1432; 1441; 1454; 2634; 2638; 2657; 2968; 3046; 3127; 3136; 3214; 3590; 3606; 3965; 3977; 4055; 4063; 4074; 4149
BstMAI	GTCTCN!	1	434
BstMAI	!NNNNGAGAC	7	1098; 1188; 1287; 2218; 2636; 3655; 3783
BstMBI	!GATC	22	585; 1180; 1206; 1429; 1438; 1451; 2631; 2635; 2654; 2965; 3043; 3124; 3133; 3211; 3587; 3603; 3962; 3974; 4052; 4060; 4071; 4146
BstMCI	CGRY!CG	3	661; 2703; 4378
BstMWI	GCNNNNN!NNGC	30	90; 212; 244; 283; 376; 400; 614; 637; 651; 704; 1135; 2021; 2051; 2078; 2120; 2361; 2433; 2484; 2563; 2785; 2869; 2892; 3031; 3154; 3237; 3504; 3691; 3895; 4094; 4666
BstNI	CC!WGG	16	90; 283; 642; 843; 987; 1002; 1131; 2330; 2385; 2402; 3181; 3760; 3863; 4553; 4566; 4687
BstNSI	RCATG!Y	6	698; 1144; 2364; 2436; 3199; 4716
BstOI	CC!WGG	16	90; 283; 642; 843; 987; 1002; 1131; 2330; 2385; 2402; 3181; 3760; 3863; 4553; 4566; 4687
BstPI	G!GTNACC	0	
BstPAI	GACNN!NNGTC	1	1299
BstSCI	!CCNGG	23	88; 281; 640; 841; 890; 985; 1000; 1129; 1238; 1425; 2328; 2383; 2400; 2796; 2956; 3179; 3569; 3758; 3861; 4333; 4551; 4564; 4685

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BstSFI	C!TRYAG	4	1403; 2129; 4256; 4447
BstSLI	GKGC!C	7	723; 750; 783; 1426; 2740; 2833; 4402
BstSNI	TAC!GTA	1	340
BstUI	CG!CG	16	60; 1420; 1682; 1718; 2094; 2114; 2138; 2169; 2860; 3161; 3599; 3683; 3746; 3815; 4088; 4669
Bst2UI	CC!WGG	16	90; 283; 642; 843; 987; 1002; 1131; 2330; 2385; 2402; 3181; 3760; 3863; 4553; 4566; 4687
BstV1I	GCAGC!NNNNNNNN!	8	877; 1319; 1582; 2867; 2909; 3430; 3883; 4383
BstV1I	!NNNNNNNNNNNGCTGC	9	592; 610; 996; 2076; 2741; 2925; 3018; 4084; 4290
BstV2I	GAAGACNN!	1	967
BstV2I	!NNNNNNGTCTTC	0	
BstXI	CCANN!NNN!NTGG	0	
BstX2I	R!GATCY	11	585; 1206; 1429; 1438; 2965; 3211; 3603; 3962; 3974; 4060; 4071
BstYI	R!GATCY	11	585; 1206; 1429; 1438; 2965; 3211; 3603; 3962; 3974; 4060; 4071
BstZI	C!GGCCG	1	2700
BstZ17I	GTA!TAC	0	
BsuI	GTATCCNNNNNN!	3	2223; 3013; 4514
BsuI	!NNNNNGGATAC	0	
Bsu15I	AT!CGAT	1	2634
Bsu36I	CC!TNAGG	3	925; 2274; 3906
BsuRI	GG!CC	31	84; 277; 631; 640; 645; 817; 1060; 1095; 1129; 1152; 1174; 1284; 1326; 1424; 1760; 1902; 2557; 2563; 2572; 2615; 2702; 2876; 3267; 3294; 3803; 3860; 3893; 4238; 4672; 4690; 4701
BsuTUI	AT!CGAT	1	2634
BtgI	C!CRYGG	5	360; 667; 1418; 2523; 3226
BtgZI	GCGATGNNNNNNNNNN!	2	1911; 3246
BtgZI	!NNNNNNNNNNNNNNNNCATCGC	3	334; 3065; 3409
BthCI	GCNG!C	35	608; 626; 654; 817; 868; 1012; 1129; 1310; 1573; 2092; 2114; 2128; 2566; 2705; 2757; 2768; 2858; 2863; 2900; 2941; 3028; 3034; 3270; 3366; 3407; 3421; 3535; 3874; 3889; 4100; 4306; 4309; 4374; 4517; 4672
BtrI	CAC!GTC	0	
BtrI	GAC!GTG	0	
BtsI	GCAGTGNN!	0	
BtsI	!CACTGC	1	1633
BtsCI	GGATGNN!	4	2654; 3111; 3136; 3590
BtsCI	!CATCC	4	750; 838; 895; 2480
BtuMI	TCG!CGA	0	
BveI	ACCTGCNNNN!	2	3062; 3512
BveI	!NNNNNNNNNGCAGGT	1	2681
Cac8I	GCN!NGC	32	86; 279; 593; 678; 768; 972; 1422; 2013; 2056; 2070; 2343; 2362; 2415; 2434; 2688; 2874; 3093; 3159; 3165; 3193; 3197; 3238; 3242; 3296; 3579; 3766; 3813; 3869; 3891; 4102; 4662; 4699
CaiI	CAGNNN!CTG	2	3895; 4303
CciI	T!CATGA	2	2220; 3992
CciNI	GC!GGCCGC	0	
CdiI	CATC!G	5	352; 3083; 3088; 3286; 3427
CdiI	C!GATG	4	1108; 1289; 1897; 3232
CdpI	GCGGAGNNNNNNNNNNNNNNNNNNNN!	1	4666
CdpI	!NNNNNNNNNNNNNNNNNNNCTCCGC	3	486; 2455; 2497
CelII	GC!TNAGC	0	
CfoI	GCG!C	23	597; 1140; 1347; 2060; 2068; 2094; 2116; 2125; 2138; 2169; 2788; 2796; 2860; 2897; 3163; 3423; 3599; 3685; 4088; 4197; 4371; 4471; 4538
CfrI	Y!GGCCR	6	643; 1324; 2700; 2874; 3265; 3292
Cfr9I	C!CCGGG	1	1425
Cfr10I	R!CCGGY	5	656; 2011; 3113; 3294; 3577
Cfr13I	G!GNCC	14	83; 276; 816; 1059; 1151; 1172; 1256; 1423; 1901; 3310; 3755; 3801; 3859; 3892
Cfr42I	CCG!GG	1	1421
ChaI	GATC!	22	589; 1184; 1210; 1433; 1442; 1455; 2635; 2639; 2658; 2969; 3047; 3128; 3137; 3215; 3591; 3607; 3966; 3978; 4056; 4064; 4075; 4150
CjeI	CCANNNNNNGTNNNNNNNNNNNNNNNN!	5	762; 2611; 4051; 4151; 4229

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
CjeI	!NNNNNNNNNACNNNNNTGG	7	64; 257; 2278; 2373; 3565; 4115; 4670
CjeI	ACNNNNNTGGNNNNNNNNNNNNNN!	7	98; 291; 2312; 2407; 3599; 4149; 4704
CjeI	!NNNNNNNNCCANNNNNGT	5	728; 2577; 4017; 4117; 4195
CjePI	CCANNNNNTCNNNNNNNNNNNNNN!	2	4051; 4229
CjePI	!NNNNNNNGGANNNNNNNTGG	3	257; 3565; 4164
CjePI	GANNNNNTGGNNNNNNNNNNNNNN!	3	290; 3598; 4197
CjePI	!NNNNNNCCANNNNNNNTC	2	4018; 4196
Clal	AT!CGAT	1	2634
CpoI	CG!GWCCG	1	3310
CseI	GACGCNNNNN!	3	526; 3504; 3583
CseI	!NNNNNNNNNGCGTC	4	1232; 2127; 4022; 4600
CsiI	A!CCWGGT	1	2383
CspI	CG!GWCCG	1	3310
Csp6I	G!TAC	11	218; 243; 298; 331; 382; 539; 710; 860; 1112; 1415; 3099
Csp45I	TT!CGAA	1	3476
CspAI	A!CCGGT	1	656
CspCI	CAANNNNNGTGGNNNNNNNNNNNN!	1	411
CspCI	!NNNNNNNNCCACNNNNNTTG	0	
CspCI	CCACNNNNNTGNNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNNCAANNNNNGTGG	1	376
CstMI	AAGGAGNNNNNNNNNNNNNNNNNN!	4	712; 1303; 2074; 3683
CstMI	!NNNNNNNNNNNNNNNNNCTCCTT	0	
CviAII	C!ATG	25	301; 361; 602; 668; 695; 701; 713; 791; 857; 937; 1141; 1148; 2221; 2361; 2433; 2524; 2665; 3010; 3196; 3227; 3253; 3609; 3993; 4713; 4764
CviJI	RG!CY	96	42; 84; 93; 277; 566; 631; 640; 645; 680; 707; 770; 817; 846; 853; 931; 997; 1009; 1053; 1060; 1087; 1095; 1129; 1152; 1160; 1174; 1284; 1320; 1326; 1391; 1424; 1463; 1573; 1740; 1760; 1902; 1983; 1997; 2011; 2292; 2333; 2405; 2528; 2557; 2563; 2572; 2580; 2603; 2615; 2621; 2702; 2719; 2727; 2754; 2779; 2863; 2872; 2876; 2900; 2938; 3014; 3031; 3050; 3113; 3157; 3167; 3184; 3267; 3294; 3298; 3335; 3358; 3374; 3554; 3581; 3642; 3764; 3803; 3860; 3867; 3874; 3893; 3904; 4155; 4184; 4227; 4238; 4303; 4382; 4407; 4412; 4458; 4548; 4646; 4672; 4690; 4701
CviKI-1	RG!CY	96	42; 84; 93; 277; 566; 631; 640; 645; 680; 707; 770; 817; 846; 853; 931; 997; 1009; 1053; 1060; 1087; 1095; 1129; 1152; 1160; 1174; 1284; 1320; 1326; 1391; 1424; 1463; 1573; 1740; 1760; 1902; 1983; 1997; 2011; 2292; 2333; 2405; 2528; 2557; 2563; 2572; 2580; 2603; 2615; 2621; 2702; 2719; 2727; 2754; 2779; 2863; 2872; 2876; 2900; 2938; 3014; 3031; 3050; 3113; 3157; 3167; 3184; 3267; 3294; 3298; 3335; 3358; 3374; 3554; 3581; 3642; 3764; 3803; 3860; 3867; 3874; 3893; 3904; 4155; 4184; 4227; 4238; 4303; 4382; 4407; 4412; 4458; 4548; 4646; 4672; 4690; 4701
CviQI	G!TAC	11	218; 243; 298; 331; 382; 539; 710; 860; 1112; 1415; 3099
DdeI	C!TNAG	7	925; 2274; 2576; 3457; 3906; 4029; 4438
DinI	GGC!GCC	1	2795
DpnI	GA!TC	22	587; 1182; 1208; 1431; 1440; 1453; 2633; 2637; 2656; 2967; 3045; 3126; 3135; 3213; 3589; 3605; 3964; 3976; 4054; 4062; 4073; 4148
DpnII	!GATC	22	585; 1180; 1206; 1429; 1438; 1451; 2631; 2635; 2654; 2965; 3043; 3124; 3133; 3211; 3587; 3603; 3962; 3974; 4052; 4060; 4071; 4146
DraI	TTT!AAA	3	1496; 3938; 3957
DraII	RG!GNCCY	1	3892
DraIII	CACNN!GTG	2	1316; 1910
DraRI	CAAGNACNNNNNNNNNNNNNNNNNN!	3	266; 907; 4274
DraRI	!NNNNNNNNNNNNNNNNNGTNCCTG	0	
DrdI	GACNNN!NNGTC	3	1865; 2821; 4610
DrdIV	TACGACNNNNNNNNNNNNNNNNNN!	0	
DrdIV	!NNNNNNNNNNNNNNNNNGTCGTA	1	476
DriI	GACNNN!NNGTC	0	
DseDI	GACNNN!NNGTC	3	1865; 2821; 4610
EaeI	Y!GGCCR	6	643; 1324; 2700; 2874; 3265; 3292
EagI	C!GGCCG	1	2700
Eam1104I	CTCTCN!	0	
Eam1104I	!NNNNGAAGAG	3	2261; 3138; 3348

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	2261; 3138; 3348
EciI	GGCGGANNNNNNNNNN!	4	2294; 3323; 4510; 4656
EciI	!NNNNNNNNNTCCGCC	4	496; 2465; 2486; 2507
Ecl136II	GAG!CTC	0	
EclXI	C!GGCCG	1	2700
Eco24I	GRGCY!C	4	1426; 1985; 3159; 3869
Eco31I	GGTCTCN!	0	
Eco31I	!NNNNNGAGACC	3	1188; 1287; 3783
Eco32I	GAT!ATC	0	
Eco47I	G!GWCC	3	1256; 3310; 3755
Eco47III	AGC!GCT	0	
Eco52I	C!GGCCG	1	2700
Eco57I	CTGAAGNNNNNNNNNNNNNN!	3	1176; 2940; 3372
Eco57I	!NNNNNNNNNNNNNNCTTCAG	1	4170
Eco72I	CAC!GTG	0	
Eco81I	CC!TNAGG	3	925; 2274; 3906
Eco88I	C!YCGRG	1	1425
Eco91I	G!GTNACC	0	
Eco105I	TAC!GTA	1	340
Eco130I	C!CWWGG	6	360; 667; 2523; 2616; 3226; 3631
Eco147I	AGG!CCT	2	1095; 2615
EcoHI	!CCSGG	7	890; 1238; 1425; 2796; 2956; 3569; 4333
EcoICRI	GAG!CTC	0	
Eco57MI	CTGRAGNNNNNNNNNNNNNN!	4	1176; 2940; 3372; 3634
Eco57MI	!NNNNNNNNNNNNNNCTYCAG	3	984; 3577; 4170
EcoNI	CCTNN!NNNAGG	0	
Eco065I	G!GTNACC	0	
Eco0109I	RG!GNCCY	1	3892
EcoRI	G!AATTC	1	1398
EcoRII	!CCWGG	16	88; 281; 640; 841; 985; 1000; 1129; 2328; 2383; 2400; 3179; 3758; 3861; 4551; 4564; 4685
EcoRV	GAT!ATC	0	
EcoT14I	C!CWWGG	6	360; 667; 2523; 2616; 3226; 3631
EcoT22I	ATGCA!T	3	2366; 2438; 4769
EcoT38I	GRGCY!C	4	1426; 1985; 3159; 3869
Eco53kl	GAG!CTC	0	
EgeI	GGC!GCC	1	2795
EheI	GGC!GCC	1	2795
ErhI	C!CWWGG	6	360; 667; 2523; 2616; 3226; 3631
EsaBC3I	TC!GA	15	809; 836; 1304; 1410; 1944; 2635; 2908; 3064; 3088; 3124; 3286; 3477; 3522; 3777; 4615
Esp3I	CGTCTCN!	0	
Esp3I	!NNNNNGAGACG	1	1098
FaeI	CATG!	25	304; 364; 605; 671; 698; 704; 716; 794; 860; 940; 1144; 1151; 2224; 2364; 2436; 2527; 2668; 3013; 3199; 3230; 3256; 3612; 3996; 4716; 4767
Fail	YA!TR	63	39; 46; 50; 67; 138; 146; 234; 236; 291; 302; 310; 362; 555; 557; 603; 669; 696; 702; 714; 792; 858; 938; 956; 1142; 1149; 1202; 1456; 1466; 1532; 1577; 1782; 2210; 2222; 2353; 2362; 2425; 2434; 2458; 2525; 2549; 2666; 2730; 3011; 3036; 3197; 3228; 3254; 3326; 3542; 3610; 3688; 3740; 3901; 3918; 3920; 3922; 3994; 4272; 4461; 4577; 4650; 4714; 4765
FalI	AAGNNNNCTTNNNNNNNNNNNN!	2	935; 3134
FalI	!NNNNNNNNAAGNNNNCTT	2	903; 3102
FaqI	GGGACNNNNNNNNNN!	6	175; 326; 494; 2945; 3477; 3586
FaqI	!NNNNNNNNNNNNNGTCCC	4	2310; 2382; 2446; 3741
FatI	!CATG	25	300; 360; 601; 667; 694; 700; 712; 790; 856; 936; 1140; 1147; 2220; 2360; 2432; 2523; 2664; 3009; 3195; 3226; 3252; 3608; 3992; 4712; 4763
FauI	CCCGCNNNN!	10	93; 119; 286; 1124; 1226; 2116; 2471; 2492; 3688; 3820
FauI	!NNNNNNGCGGG	7	1161; 1413; 2047; 2917; 3454; 3592; 3739
FauNDI	CA!TATG	1	234
FbaI	T!GATCA	1	1451
FblI	GT!MKAC	2	1246; 1409

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
FmuI	GGNC!C	14	86; 279; 819; 1062; 1154; 1175; 1259; 1426; 1904; 3313; 3758; 3804; 3862; 3895
Fnu4HI	GC!NGC	35	606; 624; 652; 815; 866; 1010; 1127; 1308; 1571; 2090; 2112; 2126; 2564; 2703; 2755; 2766; 2856; 2861; 2898; 2939; 3026; 3032; 3268; 3364; 3405; 3419; 3533; 3872; 3887; 4098; 4304; 4307; 4372; 4515; 4670
FokI	GGATGNNNNNNNNN!	4	2661; 3118; 3143; 3597
FokI	!NNNNNNNNNNNNNNCATCC	4	737; 825; 882; 2467
FriOI	GRGCY!C	4	1426; 1985; 3159; 3869
FseI	GGCCGG!CC	0	
FspI	TGC!GCA	1	2896
FspAI	RTGC!GCAY	0	
FspBI	C!TAG	8	592; 1442; 1643; 2061; 2617; 3632; 3966; 4219
FspEI	CCNNNNNNNNNNNN!	161	56; 71; 98; 114; 128; 129; 156; 182; 220; 252; 291; 307; 333; 373; 450; 451; 482; 501; 520; 593; 611; 626; 645; 659; 677; 712; 737; 767; 784; 798; 831; 845; 863; 887; 901; 932; 965; 992; 1007; 1026; 1062; 1109; 1128; 1143; 1166; 1188; 1203; 1223; 1242; 1272; 1298; 1340; 1391; 1431; 1446; 1477; 1516; 1530; 1671; 1766; 1790; 1813; 1836; 1854; 1876; 1897; 1916; 1935; 1964; 1985; 1999; 2025; 2113; 2139; 2188; 2229; 2247; 2286; 2302; 2340; 2397; 2412; 2469; 2489; 2503; 2520; 2534; 2571; 2586; 2629; 2712; 2779; 2810; 2830; 2845; 2890; 2904; 2970; 2984; 3003; 3019; 3060; 3080; 3127; 3177; 3193; 3213; 3238; 3258; 3281; 3308; 3326; 3352; 3392; 3418; 3442; 3498; 3512; 3540; 3583; 3604; 3639; 3683; 3771; 3795; 3817; 3837; 3853; 3874; 3888; 3907; 3991; 4011; 4039; 4054; 4088; 4130; 4157; 4172; 4217; 4241; 4255; 4277; 4303; 4323; 4347; 4373; 4421; 4440; 4459; 4485; 4520; 4565; 4595; 4609; 4660; 4674; 4699; 4715; 4736; 4765
FspEI	!NNNNNNNNNNNNNNNGG	130	8; 35; 59; 144; 166; 197; 252; 295; 347; 375; 400; 435; 463; 509; 529; 552; 613; 642; 672; 699; 741; 762; 786; 828; 847; 876; 912; 949; 972; 991; 1014; 1042; 1069; 1108; 1134; 1153; 1225; 1251; 1299; 1324; 1342; 1363; 1397; 1421; 1465; 1565; 1634; 1742; 1791; 1813; 1841; 1877; 1922; 1951; 1987; 2006; 2034; 2054; 2117; 2140; 2248; 2280; 2298; 2327; 2370; 2399; 2510; 2539; 2582; 2603; 2631; 2664; 2684; 2709; 2736; 2761; 2783; 2811; 2837; 2858; 2909; 2930; 2948; 2996; 3032; 3088; 3113; 3137; 3166; 3189; 3213; 3239; 3261; 3280; 3305; 3345; 3381; 3446; 3531; 3555; 3584; 3618; 3639; 3659; 3704; 3731; 3750; 3783; 3835; 3866; 3893; 3945; 4043; 4114; 4159; 4220; 4285; 4319; 4345; 4363; 4399; 4469; 4492; 4514; 4538; 4571; 4619; 4654; 4672; 4729
Fsp4HI	GC!NGC	35	606; 624; 652; 815; 866; 1010; 1127; 1308; 1571; 2090; 2112; 2126; 2564; 2703; 2755; 2766; 2856; 2861; 2898; 2939; 3026; 3032; 3268; 3364; 3405; 3419; 3533; 3872; 3887; 4098; 4304; 4307; 4372; 4515; 4670
GdiII	C!GGCCR	1	2700
GdiII	Y!GGCCG	4	643; 2700; 3265; 3292
GlaI	GC!GC	23	596; 1139; 1346; 2059; 2067; 2093; 2115; 2124; 2137; 2168; 2787; 2795; 2859; 2896; 3162; 3422; 3598; 3684; 4087; 4196; 4370; 4470; 4537
GluI	GC!NGC	35	606; 624; 652; 815; 866; 1010; 1127; 1308; 1571; 2090; 2112; 2126; 2564; 2703; 2755; 2766; 2856; 2861; 2898; 2939; 3026; 3032; 3268; 3364; 3405; 3419; 3533; 3872; 3887; 4098; 4304; 4307; 4372; 4515; 4670
GsaI	CCCAG!C	4	1053; 2341; 2413; 4412
GsaI	GCTGG!G	2	1091; 3302
GsuI	CTGGAGNNNNNNNNNNNNNN!	1	3634
GsuI	!NNNNNNNNNNNNNNCTCCAG	2	984; 3577
HaeI	WGG!CCW	7	1095; 1326; 2615; 2876; 4238; 4690; 4701
HaeII	RGCG!Y	6	598; 1348; 2061; 2069; 2797; 4472
HaeIII	GG!CC	31	84; 277; 631; 640; 645; 817; 1060; 1095; 1129; 1152; 1174; 1284; 1326; 1424; 1760; 1902; 2557; 2563; 2572; 2615; 2702; 2876; 3267; 3294; 3803; 3860; 3893; 4238; 4672; 4690; 4701
HaeIV	GAYNNNNNNRTCNNNNNNNNNNNN!	2	1469; 2990
HaeIV	!NNNNNNNNNGAYNNNNNNRTC	2	1435; 2956
HaeIV	GAYNNNNNNRTCNNNNNNNNNNNN!	2	1468; 2989
HaeIV	!NNNNNNNGAYNNNNNNRTC	2	1437; 2958

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
HapII	C!CGG	22	657; 891; 1240; 1378; 1426; 1436; 2012; 2699; 2776; 2798; 2826; 2957; 3047; 3114; 3295; 3570; 3578; 3670; 4144; 4334; 4360; 4507
HgaI	GACGCNNNNN!	3	526; 3504; 3583
HgaI	!NNNNNNNNNGCGTC	4	1232; 2127; 4022; 4600
HhaI	GCG!C	23	597; 1140; 1347; 2060; 2068; 2094; 2116; 2125; 2138; 2169; 2788; 2796; 2860; 2897; 3163; 3423; 3599; 3685; 4088; 4197; 4371; 4471; 4538
HinI	GR!CGYC	8	122; 175; 258; 444; 1243; 2794; 3496; 3575
HinIII	CATG!	25	304; 364; 605; 671; 698; 704; 716; 794; 860; 940; 1144; 1151; 2224; 2364; 2436; 2527; 2668; 3013; 3199; 3230; 3256; 3612; 3996; 4716; 4767
Hin4I	GAYNNNNNVTCNNNNNNNNNNNN!	2	1468; 2989
Hin4I	!NNNNNNNGABNNNNNRTC	3	1436; 2957; 2987
Hin4I	GABNNNNNRTCNNNNNNNNNNNN!	3	1468; 2989; 3019
Hin4I	!NNNNNNNGAYNNNNNVTC	2	1436; 2957
Hin6I	G!CGC	23	595; 1138; 1345; 2058; 2066; 2092; 2114; 2123; 2136; 2167; 2786; 2794; 2858; 2895; 3161; 3421; 3597; 3683; 4086; 4195; 4369; 4469; 4536
HinPII	G!CGC	23	595; 1138; 1345; 2058; 2066; 2092; 2114; 2123; 2136; 2167; 2786; 2794; 2858; 2895; 3161; 3421; 3597; 3683; 4086; 4195; 4369; 4469; 4536
HincII	GTY!RAC	2	1410; 1557
HindII	GTY!RAC	2	1410; 1557
HindIII	A!AGCTT	0	
HinfI	G!ANTC	14	410; 796; 946; 1273; 1837; 1859; 2269; 3279; 3413; 3465; 3523; 3560; 4342; 4738
HpaI	GTT!AAC	1	1557
HpaII	C!CGG	22	657; 891; 1240; 1378; 1426; 1436; 2012; 2699; 2776; 2798; 2826; 2957; 3047; 3114; 3295; 3570; 3578; 3670; 4144; 4334; 4360; 4507
HphI	GGTGANNNNNNN!	6	376; 683; 1052; 1362; 3865; 3981
HphI	!NNNNNNNTCACC	3	941; 1911; 2972
Hpy8I	GTN!NAC	14	201; 539; 577; 728; 748; 1043; 1247; 1256; 1410; 1557; 1841; 1858; 1913; 4400
Hpy99I	CGWCG!	12	651; 810; 1290; 1305; 1414; 2884; 2912; 3206; 3221; 3498; 3883; 4616
Hpy166II	GTN!NAC	14	201; 539; 577; 728; 748; 1043; 1247; 1256; 1410; 1557; 1841; 1858; 1913; 4400
Hpy188I	TCN!GA	12	585; 755; 1968; 2577; 2761; 3105; 3458; 3559; 4038; 4172; 4525; 4603
Hpy188III	TC!NNGA	22	1232; 1378; 1442; 2221; 2273; 2586; 2639; 2812; 3128; 3137; 3220; 3276; 3320; 3410; 3443; 3512; 3993; 4067; 4150; 4248; 4346; 4480
HpyAV	CCTCNNNNNN!	6	836; 884; 929; 3439; 3546; 4225
HpyAV	!NNNNNGAAGG	9	756; 1128; 2027; 2922; 3651; 3667; 3850; 4167; 4477
HpyCH4III	ACN!GT	15	76; 198; 269; 543; 581; 725; 1414; 1885; 3174; 3290; 3398; 3721; 4212; 4682; 4753
HpyCH4IV	A!CGT	17	122; 134; 175; 258; 339; 444; 1024; 1252; 1300; 1854; 1866; 1909; 2019; 2910; 3097; 3878; 4011
HpyCH4V	TG!CA	20	748; 1070; 1186; 1405; 1543; 1570; 1638; 2355; 2364; 2427; 2436; 2551; 2627; 2686; 2845; 3020; 3034; 4104; 4400; 4767
HpyF3I	C!TNAG	7	925; 2274; 2576; 3457; 3906; 4029; 4438
HpyF10VI	GCNNNNN!NNGC	30	90; 212; 244; 283; 376; 400; 614; 637; 651; 704; 1135; 2021; 2051; 2078; 2120; 2361; 2433; 2484; 2563; 2785; 2869; 2892; 3031; 3154; 3237; 3504; 3691; 3895; 4094; 4666
Hsp92I	GR!CGYC	8	122; 175; 258; 444; 1243; 2794; 3496; 3575
Hsp92II	CATG!	25	304; 364; 605; 671; 698; 704; 716; 794; 860; 940; 1144; 1151; 2224; 2364; 2436; 2527; 2668; 3013; 3199; 3230; 3256; 3612; 3996; 4716; 4767
HspAI	G!CGC	23	595; 1138; 1345; 2058; 2066; 2092; 2114; 2123; 2136; 2167; 2786; 2794; 2858; 2895; 3161; 3421; 3597; 3683; 4086; 4195; 4369; 4469; 4536
KasI	G!GCGCC	1	2793
KfII	GG!GWCCC	0	
KpnI	GGTAC!C	1	1418
Kpn2I	T!CCGGA	1	1377
KspI	CCGC!GG	1	1421

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Ksp22I	T!GATCA	1	1451
KspAI	GTT!AAC	1	1557
Kzo9I	!GATC	22	585; 1180; 1206; 1429; 1438; 1451; 2631; 2635; 2654; 2965; 3043; 3124; 3133; 3211; 3587; 3603; 3962; 3974; 4052; 4060; 4071; 4146
LguI	GCTCTTCN!	0	
LguI	!NNNNGAAGAGC	2	3138; 3348
LpnI	RGC!GCGY	6	596; 1346; 2059; 2067; 2795; 4470
LpnPI	CCDGNNNNNNNNN!	62	102; 295; 654; 670; 798; 855; 904; 937; 999; 1014; 1063; 1143; 1167; 1191; 1253; 1340; 1391; 1439; 1531; 1836; 2025; 2248; 2286; 2302; 2342; 2397; 2414; 2514; 2599; 2712; 2789; 2811; 2834; 2970; 2984; 3003; 3060; 3127; 3177; 3193; 3250; 3308; 3517; 3583; 3607; 3683; 3772; 3875; 3908; 4139; 4157; 4303; 4323; 4347; 4373; 4422; 4520; 4565; 4595; 4674; 4699; 4736
LpnPI	!NNNNNNNNNNNNNNCHGG	55	75; 268; 552; 627; 828; 876; 972; 1073; 1116; 1225; 1251; 1324; 1363; 1411; 1877; 1997; 2054; 2117; 2315; 2327; 2387; 2399; 2631; 2676; 2719; 2761; 2783; 2811; 2858; 2920; 2942; 3032; 3099; 3122; 3166; 3261; 3280; 3305; 3454; 3555; 3598; 3655; 3745; 3848; 3875; 3893; 4129; 4166; 4319; 4345; 4485; 4503; 4538; 4619; 4672
Lsp1109I	GCAGCNNNNNNNN!	8	877; 1319; 1582; 2867; 2909; 3430; 3883; 4383
Lsp1109I	!NNNNNNNNNNNNNGCTGC	9	592; 610; 996; 2076; 2741; 2925; 3018; 4084; 4290
LweI	GCATCNNNNNN!	7	904; 1610; 2373; 2445; 3093; 3157; 3432
LweI	!NNNNNNNNNNNGATGC	7	357; 1057; 1225; 2752; 3007; 3223; 4615
MabI	A!CCWGGT	1	2383
MaeI	C!TAG	8	592; 1442; 1643; 2061; 2617; 3632; 3966; 4219
MaeII	A!CGT	17	122; 134; 175; 258; 339; 444; 1024; 1252; 1300; 1854; 1866; 1909; 2019; 2910; 3097; 3878; 4011
MaeIII	!GTNAC	14	61; 148; 497; 947; 1143; 1582; 2083; 2095; 2914; 3220; 3910; 4176; 4292; 4355
MalI	GA!TC	22	587; 1182; 1208; 1431; 1440; 1453; 2633; 2637; 2656; 2967; 3045; 3126; 3135; 3213; 3589; 3605; 3964; 3976; 4054; 4062; 4073; 4148
MaqI	CRTTGACNNNNNNNNNNNNNNNNNNNNNN!	4	144; 197; 466; 540
MaqI	!NNNNNNNNNNNNNNNNNNNNNGTCAAYG	3	157; 240; 426
MauBI	CG!CGCGCG	0	
MbiI	CCG!CTC	2	2218; 3407
MbiI	GAG!CGG	2	2054; 3461
MboI	!GATC	22	585; 1180; 1206; 1429; 1438; 1451; 2631; 2635; 2654; 2965; 3043; 3124; 3133; 3211; 3587; 3603; 3962; 3974; 4052; 4060; 4071; 4146
MboII	GAAGANNNNNNNNN!	7	972; 1085; 2050; 2278; 3155; 3365; 3984
MboII	!NNNNNNNTCTTC	4	3445; 3612; 3812; 4055
McaTI	GCGC!GC	0	
MfeI	C!AATTG	1	1544
MflI	R!GATCY	11	585; 1206; 1429; 1438; 2965; 3211; 3603; 3962; 3974; 4060; 4071
MhlI	GDGCH!C	12	723; 750; 783; 1426; 1985; 2740; 2833; 2907; 3097; 3159; 3869; 4402
MisI	TGG!CCA	2	1326; 2876
MluI	A!CGCGT	1	1680
MluNI	TGG!CCA	2	1326; 2876
MlyI	GAGTCNNNNNN!	3	955; 1846; 2278
MlyI	!NNNNNGACTC	4	404; 1853; 3459; 4336
Mly113I	GG!CGCC	1	2794
MmeI	TCCRACNNNNNNNNNNNNNNNNNNNNNN!	1	1887
MmeI	!NNNNNNNNNNNNNNNNNNNGTYGGA	2	4319; 4503
MnI	CCTCNNNNNNNN!	14	642; 829; 898; 1008; 1023; 1106; 1239; 1513; 2577; 3395; 3601; 3915; 4285; 4609
MnI	!NNNNNNNGAGG	24	541; 710; 749; 770; 803; 920; 1029; 1085; 1274; 1307; 1350; 1362; 1473; 1938; 2269; 2547; 2590; 2605; 2645; 2709; 2845; 3202; 3632; 4535
Mph1103I	ATGCA!T	3	2366; 2438; 4769
MreI	CG!CCGGCG	0	
MroI	T!CCGGA	1	1377
MroNI	G!CCGGC	3	2011; 3294; 3577
MroXI	GAANN!NNTTC	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
MscI	TGG!CCA	2	1326; 2876
MseI	T!TAA	17	7; 685; 910; 1495; 1556; 1677; 1698; 1709; 1721; 1732; 1749; 1847; 2118; 3937; 3951; 3956; 4008
MslI	CAYNN!NNRTG	4	365; 669; 699; 3231
MspI	C!CGG	22	657; 891; 1240; 1378; 1426; 1436; 2012; 2699; 2776; 2798; 2826; 2957; 3047; 3114; 3295; 3570; 3578; 3670; 4144; 4334; 4360; 4507
Msp20I	TGG!CCA	2	1326; 2876
MspA1I	CMG!CKG	6	1119; 1420; 2292; 2900; 4129; 4374
MspCI	C!TTAAG	0	
MspJI	CNNRNNNNNNNN!	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; 614; 639; 653; 669; 689; 707; 725; 755; 773; 788; 803; 821; 854; 869; 893; 912; 936; 949; 965; 983; 997; 1013; 1026; 1040; 1061; 1074; 1095; 1114; 1128; 1142; 1160; 1173; 1190; 1203; 1217; 1230; 1244; 1265; 1278; 1297; 1316; 1339; 1360; 1390; 1431; 1448; 1462; 1477; 1501; 1518; 1531; 1572; 1586; 1599; 1617; 1655; 1670; 1688; 1729; 1753; 1773; 1791; 1812; 1835; 1867; 1882; 1904; 1922; 1935; 1956; 1973; 1986; 1999; 2015; 2028; 2058; 2073; 2098; 2116; 2129; 2144; 2168; 2182; 2206; 2231; 2247; 2285; 2301; 2340; 2354; 2368; 2396; 2412; 2426; 2440; 2469; 2482; 2503; 2512; 2534; 2564; 2580; 2598; 2628; 2651; 2675; 2699; 2718; 2746; 2772; 2788; 2801; 2824; 2838; 2858; 2871; 2885; 2904; 2918; 2931; 2947; 2962; 2975; 2991; 3006; 3022; 3047; 3066; 3082; 3095; 3108; 3126; 3140; 3154; 3170; 3192; 3208; 3227; 3249; 3265; 3288; 3307; 3321; 3337; 3351; 3371; 3387; 3400; 3422; 3455; 3469; 3489; 3502; 3516; 3570; 3583; 3606; 3619; 3638; 3655; 3682; 3718; 3751; 3770; 3795; 3816; 3843; 3856; 3873; 3887; 3902; 3918; 3978; 4003; 4019; 4041; 4054; 4068; 4099; 4113; 4138; 4156; 4171; 4184; 4203; 4216; 4231; 4260; 4279; 4297; 4322; 4337; 4356; 4372; 4391; 4409; 4425; 4439; 4458; 4485; 4508; 4530; 4549; 4564; 4577; 4594; 4614; 4641; 4654; 4673; 4698; 4721; 4735; 4748; 4765
MspJI	!NNNNNNNNNNNNYNG	200	8; 35; 59; 76; 97; 123; 145; 168; 197; 221; 269; 281; 310; 330; 347; 377; 400; 437; 465; 492; 511; 531; 553; 574; 598; 622; 643; 663; 681; 699; 729; 753; 771; 795; 814; 836; 867; 886; 910; 943; 972; 1014; 1036; 1069; 1089; 1116; 1134; 1151; 1169; 1197; 1218; 1239; 1263; 1285; 1308; 1325; 1363; 1381; 1405; 1422; 1446; 1475; 1504; 1546; 1629; 1667; 1691; 1714; 1743; 1787; 1809; 1841; 1877; 1894; 1915; 1952; 1972; 1989; 2006; 2041; 2059; 2077; 2094; 2118; 2140; 2167; 2195; 2221; 2259; 2280; 2297; 2315; 2338; 2359; 2387; 2410; 2431; 2449; 2470; 2487; 2510; 2534; 2554; 2572; 2594; 2625; 2647; 2673; 2692; 2709; 2737; 2756; 2775; 2793; 2811; 2832; 2854; 2878; 2911; 2931; 2949; 2970; 2996; 3023; 3040; 3057; 3074; 3100; 3122; 3144; 3162; 3182; 3201; 3223; 3261; 3281; 3305; 3325; 3345; 3372; 3396; 3429; 3448; 3476; 3498; 3527; 3555; 3580; 3599; 3618; 3639; 3656; 3673; 3704; 3731; 3751; 3774; 3794; 3831; 3848; 3867; 3893; 3913; 3952; 3979; 3998; 4016; 4053; 4071; 4112; 4130; 4156; 4173; 4205; 4234; 4262; 4283; 4306; 4325; 4346; 4364; 4381; 4399; 4425; 4446; 4466; 4486; 4504; 4525; 4551; 4568; 4587; 4606; 4635; 4654; 4672; 4691; 4709; 4727; 4750
MspR9I	CC!NGG	23	90; 283; 642; 843; 892; 987; 1002; 1131; 1240; 1427; 2330; 2385; 2402; 2798; 2958; 3181; 3571; 3760; 3863; 4335; 4553; 4566; 4687
MssI	GTTT!AAC	0	
MunI	C!AATTG	1	1544
MvaI	CC!WGG	16	90; 283; 642; 843; 987; 1002; 1131; 2330; 2385; 2402; 3181; 3760; 3863; 4553; 4566; 4687
Mva1269I	GAATGCN!	1	1545
Mva1269I	G!CATTC	1	1638
MvnI	CG!CG	16	60; 1420; 1682; 1718; 2094; 2114; 2138; 2169; 2860; 3161; 3599; 3683; 3746; 3815; 4088; 4669
MvrI	CGAT!CG	0	
MwoI	GCNNNNN!NNGC	30	90; 212; 244; 283; 376; 400; 614; 637; 651; 704; 1135; 2021; 2051; 2078; 2120; 2361; 2433; 2484; 2563; 2785; 2869; 2892; 3031; 3154; 3237; 3504; 3691; 3895; 4094; 4666
NaeI	GCC!GGC	3	2013; 3296; 3579
NarI	GG!CGCC	1	2794

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
NciI	CC!SGG	7	892; 1240; 1427; 2798; 2958; 3571; 4335
NcoI	C!CATGG	4	360; 667; 2523; 3226
NdeI	CA!TATG	1	234
NdeII	!GATC	22	585; 1180; 1206; 1429; 1438; 1451; 2631; 2635; 2654; 2965; 3043; 3124; 3133; 3211; 3587; 3603; 3962; 3974; 4052; 4060; 4071; 4146
NgoAVIII	GACNNNNNTGANNNNNNNNNNNN!	1	280
NgoAVIII	!NNNNNNNNNNNTCANNNNNGTC	1	787
NgoAVIII	TCANNNNNGTCNNNNNNNNNNNN!	1	823
NgoAVIII	!NNNNNNNNNNNGACNNNNNTGA	1	244
NgoMIV	G!CCGGC	3	2011; 3294; 3577
NheI	G!CTAGC	1	591
NlaIII	CATG!	25	304; 364; 605; 671; 698; 704; 716; 794; 860; 940; 1144; 1151; 2224; 2364; 2436; 2527; 2668; 3013; 3199; 3230; 3256; 3612; 3996; 4716; 4767
NlaIV	GGN!NCC	21	467; 722; 782; 1173; 1376; 1416; 1424; 1431; 1949; 1970; 1982; 2173; 2334; 2406; 2795; 2830; 3678; 3757; 3802; 4645; 4684
NlaCI	CATCACNNNNNNNNNNNNNNNNNN!	3	1626; 1941; 3533
NlaCI	!NNNNNNNNNNNNNNNNNGTGATG	4	347; 1047; 1333; 4605
Nli3877I	CYCGR!G	1	1429
NmeAIII	GCCGAGNNNNNNNNNNNNNNNNNN!	2	2583; 3019
NmeAIII	!NNNNNNNNNNNNNNNNNNCTCGGC	3	607; 1063; 2548
NmeDI	RCCGGYNNNNNNNN!	5	668; 2023; 3125; 3306; 3589
NmeDI	!NNNNNNNNNNNNRCCGGY	5	643; 1998; 3100; 3281; 3564
NmuCI	!GTSAC	5	947; 1143; 2083; 2914; 3220
NotI	GC!GGCCGC	0	
NruI	TCG!CGA	0	
NsbI	TGC!GCA	1	2896
NsiI	ATGCA!T	3	2366; 2438; 4769
NspI	RCATG!Y	6	698; 1144; 2364; 2436; 3199; 4716
NspV	TT!CGAA	1	3476
OliI	CACNN!NNGTG	1	669
PabI	GTA!C	11	220; 245; 300; 333; 384; 541; 712; 862; 1114; 1417; 3101
PacI	TTAAT!TAA	0	
PaeI	GCATG!C	3	2364; 2436; 3199
PaeR7I	C!TCGAG	0	
PagI	T!CATGA	2	2220; 3992
PalAI	GG!CGCGCC	0	
PasI	CC!CWGGG	2	3759; 3862
PauI	G!CGCGC	0	
PceI	AGG!CCT	2	1095; 2615
PciI	A!CATGT	1	4712
PciSI	GCTCTCN!	0	
PciSI	!NNNNGAAGAGC	2	3138; 3348
PcsI	WCGNNNN!NNNCGW	8	643; 1309; 3088; 3165; 3408; 3482; 3875; 4393
PctI	GAATGCN!	1	1545
PctI	G!CATTC	1	1638
PdiI	GCC!GGC	3	2013; 3296; 3579
PdmI	GAANN!NNTTC	0	
PfeI	G!AWTC	7	796; 1273; 3279; 3413; 3523; 3560; 4738
Pfl23II	C!GTACG	0	
PfIFI	GACN!NNGTC	1	2912
PfIMI	CCANNNN!NTGG	1	1265
PfoI	T!CCNGGA	2	1000; 3569
PhoI	GG!CC	31	84; 277; 631; 640; 645; 817; 1060; 1095; 1129; 1152; 1174; 1284; 1326; 1424; 1760; 1902; 2557; 2563; 2572; 2615; 2702; 2876; 3267; 3294; 3803; 3860; 3893; 4238; 4672; 4690; 4701
PinAI	A!CCGGT	1	656
PlaDI	CATCAGNNNNNNNNNNNNNNNNNN!	1	3175
PlaDI	!NNNNNNNNNNNNNNNNNNCTGATG	2	2740; 2995
PleI	GAGTCNNNN!	3	954; 1845; 2277
PleI	!NNNNNGACTC	4	404; 1853; 3459; 4336
Ple19I	CGAT!CG	0	
PmaCI	CAC!GTG	0	
PmeI	GTTT!AAAC	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
PmlI	CAC!GTG	0	
PpiI	GAACNNNNNCTCNNNNNNNNNNNNNN!	1	1876
PpiI	!NNNNNNNNNGAGNNNNNGTTC	1	4006
PpiI	GAGNNNNNGTTCNNNNNNNNNNNN!	1	4038
PpiI	!NNNNNNNGAACNNNNNNCTC	1	1844
PpsI	GAGTCNNNN!	3	954; 1845; 2277
PpsI	!NNNNNGACTC	4	404; 1853; 3459; 4336
Ppu10I	A!TGCAT	3	2362; 2434; 4765
Ppu21I	YAC!GTR	3	340; 1910; 3098
PpuMI	RG!GWCCY	0	
Psci	A!CATGT	1	4712
PshAI	GACNN!NNGTC	1	1299
PshBI	AT!TAAT	1	7
PsiI	TTA!TAA	2	1577; 1782
Psp03I	GGWC!C	3	1259; 3313; 3758
Psp5II	RG!GWCCY	0	
Psp6I	!CCWGG	16	88; 281; 640; 841; 985; 1000; 1129; 2328; 2383; 2400; 3179; 3758; 3861; 4551; 4564; 4685
Psp1406I	AA!CGTT	0	
Psp124BI	GAGCT!C	0	
PspCI	CAC!GTG	0	
PspEI	G!GTNACC	0	
PspGI	!CCWGG	16	88; 281; 640; 841; 985; 1000; 1129; 2328; 2383; 2400; 3179; 3758; 3861; 4551; 4564; 4685
PspLI	C!GTACG	0	
PspN4I	GGN!NCC	21	467; 722; 782; 1173; 1376; 1416; 1424; 1431; 1949; 1970; 1982; 2173; 2334; 2406; 2795; 2830; 3678; 3757; 3802; 4645; 4684
PspOMI	G!GGCCC	1	1422
PspOMII	CGCCARNNNNNNNNNNNNNNNNNNN!	3	125; 2524; 3523
PspOMII	!NNNNNNNNNNNNNNNNNNNYTGGGCG	1	2926
PspPI	G!GNCC	14	83; 276; 816; 1059; 1151; 1172; 1256; 1423; 1901; 3310; 3755; 3801; 3859; 3892
PspPPI	RG!GWCCY	0	
PspPRI	CCYCAGNNNNNNNNNNNNNNNN!	3	2347; 2419; 3925
PspPRI	!NNNNNNNNNNNNNCTGRGG	3	911; 2260; 3455
PspXI	VC!TCGAGB	0	
PsrI	GAACNNNNNTACNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGTANNNNNNGTTC	0	
PsrI	GTANNNNNNGTTCNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGAACNNNNNNNTAC	0	
PssI	RGGNC!CY	1	3895
PstI	CTGCA!G	1	1407
PstNI	CAGNNN!CTG	2	3895; 4303
PsuI	R!GATCY	11	585; 1206; 1429; 1438; 2965; 3211; 3603; 3962; 3974; 4060; 4071
PsyI	GACN!NNGTC	1	2912
PteI	G!CGCGC	0	
PvuI	CGAT!CG	0	
PvuII	CAG!CTG	2	2292; 2900
RcaI	T!CATGA	2	2220; 3992
RceI	CATCGACNNNNNNNNNNNNNNNNNN!	1	3309
RceI	!NNNNNNNNNNNNNNNNNGTCGATG	0	
RgaI	GCGAT!CGC	0	
RigI	GGCCGG!CC	0	
RleAI	CCCACANNNNNNNNNNNNNN!	1	1523
RleAI	!NNNNNNNNNTGTGGG	0	
RpaBI	CCCGCAGNNNNNNNNNNNNNNNNNN!	0	
RpaBI	!NNNNNNNNNNNNNNNNNNCTGCGGG	0	
RpaB5I	CGRGGACNNNNNNNNNNNNNNNNNN!	0	
RpaB5I	!NNNNNNNNNNNNNNNNNGTCCYCG	0	
RruI	TCG!CGA	0	
RsaI	GT!AC	11	219; 244; 299; 332; 383; 540; 711; 861; 1113; 1416; 3100
RsaNI	G!TAC	11	218; 243; 298; 331; 382; 539; 710; 860; 1112; 1415; 3099
RseI	CAYNN!NNRTG	4	365; 669; 699; 3231

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
RsrII	CG!GWCCG	1	3310
Rsr2I	CG!GWCCG	1	3310
SacI	GAGCT!C	0	
SacII	CCGC!GG	1	1421
SalI	G!TCGAC	1	1408
SapI	GCTCTTCN!	0	
SapI	!NNNNGAAGAGC	2	3138; 3348
SaqAI	T!TAA	17	7; 685; 910; 1495; 1556; 1677; 1698; 1709; 1721; 1732; 1749; 1847; 2118; 3937; 3951; 3956; 4008
SatI	GC!NGC	35	606; 624; 652; 815; 866; 1010; 1127; 1308; 1571; 2090; 2112; 2126; 2564; 2703; 2755; 2766; 2856; 2861; 2898; 2939; 3026; 3032; 3268; 3364; 3405; 3419; 3533; 3872; 3887; 4098; 4304; 4307; 4372; 4515; 4670
Sau96I	G!GNCC	14	83; 276; 816; 1059; 1151; 1172; 1256; 1423; 1901; 3310; 3755; 3801; 3859; 3892
Sau3AI	!GATC	22	585; 1180; 1206; 1429; 1438; 1451; 2631; 2635; 2654; 2965; 3043; 3124; 3133; 3211; 3587; 3603; 3962; 3974; 4052; 4060; 4071; 4146
SbfI	CCTGCA!GG	0	
ScaI	AGT!ACT	0	
SchI	GAGTCNNNNN!	3	955; 1846; 2278
SchI	!NNNNNGACTC	4	404; 1853; 3459; 4336
SciI	CTC!GAG	0	
ScrFI	CC!NGG	23	90; 283; 642; 843; 892; 987; 1002; 1131; 1240; 1427; 2330; 2385; 2402; 2798; 2958; 3181; 3571; 3760; 3863; 4335; 4553; 4566; 4687
SdaI	CCTGCA!GG	0	
SdeAI	CAGRAGNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN!	5	1097; 2372; 2444; 2613; 4555
SdeAI	!NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNCTYCTG	2	2949; 3434
SdeOSI	GACNNNNRTGANNNNNNNNNNNNNNNNNNNNN!	1	279
SdeOSI	!NNNNNNNNNNNTCAYNNNNNGTC	0	
SdeOSI	TCAYNNNNNGTCNNNNNNNNNNNNNNNNNNNN!	0	
SdeOSI	!NNNNNNNNNNNGACNNNNNNRTGA	1	245
SduI	GDGCH!C	12	723; 750; 783; 1426; 1985; 2740; 2833; 2907; 3097; 3159; 3869; 4402
SelI	!CGCG	16	58; 1418; 1680; 1716; 2092; 2112; 2136; 2167; 2858; 3159; 3597; 3681; 3744; 3813; 4086; 4667
SetI	ASST!	68	125; 137; 178; 261; 308; 342; 447; 552; 568; 682; 709; 805; 855; 876; 1027; 1033; 1162; 1180; 1192; 1231; 1255; 1299; 1303; 1318; 1361; 1367; 1376; 1393; 1484; 1505; 1514; 1526; 1575; 1742; 1857; 1869; 1912; 1949; 1999; 2022; 2146; 2294; 2389; 2582; 2695; 2823; 2902; 2913; 2985; 3056; 3100; 3360; 3506; 3550; 3881; 3912; 3971; 4014; 4157; 4178; 4277; 4414; 4429; 4448; 4460; 4504; 4550; 4601
SexAI	A!CCWGGT	1	2383
SfaAI	GCGAT!CGC	0	
SfaNI	GCATCNNNNN!	7	904; 1610; 2373; 2445; 3093; 3157; 3432
SfaNI	!NNNNNNNNNGATGC	7	357; 1057; 1225; 2752; 3007; 3223; 4615
SfcI	C!TRYAG	4	1403; 2129; 4256; 4447
SfiI	GGCCNNNN!NGGCC	2	637; 2569
SfoI	GGC!GCC	1	2795
Sfr274I	C!TCGAG	0	
Sfr303I	CCGC!GG	1	1421
SfuI	TT!CGAA	1	3476

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SgeI	CNNGNNNNNNNNNN!	192	6; 36; 71; 97; 123; 223; 236; 252; 290; 307; 336; 373; 407; 426; 491; 548; 579; 604; 626; 639; 653; 669; 689; 707; 725; 755; 779; 797; 812; 854; 869; 893; 912; 936; 949; 977; 998; 1013; 1040; 1062; 1095; 1115; 1128; 1142; 1160; 1173; 1190; 1203; 1223; 1244; 1265; 1278; 1316; 1339; 1360; 1390; 1431; 1448; 1501; 1530; 1572; 1655; 1693; 1729; 1813; 1835; 1867; 1904; 1922; 1941; 1956; 1998; 2015; 2032; 2067; 2081; 2098; 2120; 2144; 2168; 2233; 2247; 2285; 2301; 2341; 2354; 2373; 2396; 2413; 2426; 2445; 2475; 2496; 2513; 2536; 2571; 2598; 2629; 2651; 2677; 2699; 2718; 2746; 2782; 2801; 2824; 2838; 2858; 2871; 2885; 2904; 2918; 2937; 2969; 2983; 2996; 3022; 3053; 3066; 3083; 3100; 3114; 3131; 3149; 3164; 3192; 3208; 3227; 3249; 3265; 3288; 3307; 3332; 3351; 3371; 3398; 3422; 3455; 3474; 3502; 3516; 3582; 3606; 3621; 3644; 3665; 3682; 3730; 3757; 3771; 3800; 3824; 3857; 3874; 3894; 3907; 3920; 3978; 4005; 4024; 4054; 4079; 4099; 4113; 4138; 4156; 4193; 4231; 4260; 4288; 4302; 4322; 4337; 4358; 4372; 4391; 4409; 4425; 4465; 4485; 4512; 4530; 4551; 4564; 4577; 4594; 4618; 4641; 4673; 4698; 4725; 4747
SgeI	!NNNNNNNNNNNNCNG	168	10; 45; 71; 97; 197; 226; 264; 281; 310; 347; 381; 400; 465; 522; 553; 578; 600; 622; 643; 663; 681; 699; 729; 753; 771; 795; 828; 867; 886; 910; 951; 972; 1014; 1036; 1069; 1089; 1116; 1134; 1155; 1177; 1197; 1218; 1239; 1263; 1290; 1313; 1334; 1364; 1405; 1422; 1475; 1504; 1546; 1629; 1667; 1703; 1787; 1809; 1841; 1878; 1896; 1915; 1972; 1989; 2006; 2041; 2059; 2079; 2099; 2118; 2142; 2207; 2259; 2315; 2347; 2370; 2387; 2419; 2449; 2470; 2487; 2510; 2545; 2572; 2603; 2625; 2651; 2673; 2692; 2720; 2756; 2775; 2798; 2819; 2837; 2854; 2878; 2911; 2943; 2970; 2996; 3027; 3057; 3074; 3100; 3123; 3144; 3166; 3186; 3206; 3223; 3262; 3281; 3306; 3325; 3345; 3372; 3396; 3429; 3448; 3476; 3498; 3556; 3580; 3599; 3618; 3639; 3656; 3704; 3731; 3751; 3774; 3798; 3831; 3848; 3868; 3894; 3952; 3979; 3998; 4028; 4053; 4073; 4112; 4130; 4167; 4205; 4234; 4262; 4283; 4311; 4332; 4365; 4383; 4439; 4459; 4486; 4504; 4525; 4551; 4568; 4592; 4615; 4647; 4672; 4699; 4721; 4750
SgfI	GCGAT!CGC	0	
SgrAI	CR!CCGGYG	0	
SgrBI	CCGC!GG	1	1421
SgrDI	CG!TCGACG	0	
SgsI	GG!CGCGCC	0	
SimI	GG!GTC	4	27; 1941; 3728; 4521
SimI	!GACCC	4	106; 3222; 3790; 4038
SinI	G!GWCC	3	1256; 3310; 3755
SlaI	C!TCGAG	0	
SmaI	CCC!GGG	1	1427
SmiI	ATTT!AAAT	0	
SmiMI	CAYNN!NNRTG	4	365; 669; 699; 3231
SmlI	C!TYRAG	6	1191; 1230; 3185; 4067; 4344; 4606
SmoI	C!TYRAG	6	1191; 1230; 3185; 4067; 4344; 4606
SmuI	CCCGNNNN!	10	93; 119; 286; 1124; 1226; 2116; 2471; 2492; 3688; 3820
SmuI	!NNNNNNGCGGG	7	1161; 1413; 2047; 2917; 3454; 3592; 3739
SnaBI	TAC!GTA	1	340
SpeI	A!CTAGT	0	
SphI	GCATG!C	3	2364; 2436; 3199
SrfI	GCCC!GGGC	0	
Sse9I	!AATT	11	18; 1398; 1544; 1608; 1686; 1712; 1723; 2370; 2442; 2534; 3952
Sse8387I	CCTGCA!GG	0	
Sse8647I	AG!GWCCCT	0	
SseBI	AGG!CCT	2	1095; 2615
SsiI	C!CGC	36	58; 86; 98; 112; 279; 507; 589; 652; 979; 1117; 1219; 1418; 2109; 2112; 2126; 2216; 2464; 2476; 2485; 2497; 2507; 2518; 2564; 2703; 2766; 3268; 3313; 3379; 3405; 3530; 3533; 3681; 3813; 4120; 4264; 4760
SsiI	G!CGG	27	370; 403; 528; 814; 1126; 1168; 1420; 2054; 2081; 2169; 2279; 2860; 2924; 3025; 3028; 3308; 3363; 3461; 3599; 3746; 3886; 4129; 4374; 4495; 4514; 4641; 4669
SspI	AAT!ATT	2	1702; 2255
SspDI	G!GCGCC	1	2793

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SspD5I	GGTGANNNNNNNNN!	6	376; 683; 1052; 1362; 3865; 3981
SspD5I	!NNNNNNNNNTCACC	3	940; 1910; 2971
SstI	GAGCT!C	0	
SstII	CCGC!GG	1	1421
SstE37I	CGAAGACNNNNNNNNNNNNNNNNNNNNNNNNNNNN!	1	985
SstE37I	!NNNNNNNNNNNNNNNNNNNGTCTTCG	0	
Sth132I	CCCGNNNN!	20	92; 118; 285; 907; 1123; 1225; 1246; 1432; 1993; 2115; 2470; 2491; 2804; 3207; 3346; 3417; 3687; 3819; 4049; 4487
Sth132I	!NNNNNNNNNCGGG	22	15; 407; 470; 883; 956; 1160; 1412; 1994; 2046; 2147; 2874; 2916; 2949; 3453; 3562; 3591; 3738; 3842; 3873; 4326; 4370; 4578
Sth302II	CC!GG	22	658; 892; 1241; 1379; 1427; 1437; 2013; 2700; 2777; 2799; 2827; 2958; 3048; 3115; 3296; 3571; 3579; 3671; 4145; 4335; 4361; 4508
StrI	C!TCGAG	0	
StsI	GGATGNNNNNNNNNN!	4	2662; 3119; 3144; 3598
StsI	!NNNNNNNNNNNNNNNNCATCC	4	736; 824; 881; 2466
StuI	AGG!CCT	2	1095; 2615
StyI	C!CWGG	6	360; 667; 2523; 2616; 3226; 3631
StyD4I	!CCNGG	23	88; 281; 640; 841; 890; 985; 1000; 1129; 1238; 1425; 2328; 2383; 2400; 2796; 2956; 3179; 3569; 3758; 3861; 4333; 4551; 4564; 4685
SwaI	ATTT!AAAT	0	
TaaI	ACN!GT	15	76; 198; 269; 543; 581; 725; 1414; 1885; 3174; 3290; 3398; 3721; 4212; 4682; 4753
TaiI	ACGT!	17	125; 137; 178; 261; 342; 447; 1027; 1255; 1303; 1857; 1869; 1912; 2022; 2913; 3100; 3881; 4014
TaqI	T!CGA	15	808; 835; 1303; 1409; 1943; 2634; 2907; 3063; 3087; 3123; 3285; 3476; 3521; 3776; 4614
TaqII	GACCGANNNNNNNNNNN!	3	1814; 2831; 3499
TaqII	!NNNNNNNNNTCGGTC	1	3743
TaqII	CACCCANNNNNNNNNNN!	1	798
TaqII	!NNNNNNNNNTGGGTG	3	172; 2698; 3290
TasI	!AATT	11	18; 1398; 1544; 1608; 1686; 1712; 1723; 2370; 2442; 2534; 3952
TatI	W!GTACW	5	217; 297; 330; 381; 709
TauI	GCSG!C	18	654; 817; 1129; 2114; 2128; 2566; 2705; 2768; 2863; 3028; 3031; 3270; 3366; 3407; 3535; 3889; 4517; 4672
TfiI	G!AWTC	7	796; 1273; 3279; 3413; 3523; 3560; 4738
TliI	C!TCGAG	0	
TruII	T!TAA	17	7; 685; 910; 1495; 1556; 1677; 1698; 1709; 1721; 1732; 1749; 1847; 2118; 3937; 3951; 3956; 4008
Tru9I	T!TAA	17	7; 685; 910; 1495; 1556; 1677; 1698; 1709; 1721; 1732; 1749; 1847; 2118; 3937; 3951; 3956; 4008
TscAI	CASTGNN!	5	1640; 2923; 4033; 4304; 4317
TseI	G!CWGC	18	605; 623; 865; 1009; 1307; 1570; 2089; 2754; 2855; 2897; 2938; 3031; 3418; 3871; 4097; 4303; 4306; 4371
TsoI	TARCCANNNNNNNNNNN!	2	1766; 2113
TsoI	!NNNNNNNNNTGGYTA	3	834; 1571; 3323
Tsp45I	!GTSAC	5	947; 1143; 2083; 2914; 3220
Tsp509I	!AATT	11	18; 1398; 1544; 1608; 1686; 1712; 1723; 2370; 2442; 2534; 3952
TspDTI	ATGAANNNNNNNNNNN!	4	717; 1552; 2853; 3557
TspDTI	!NNNNNNNNNTTCAT	6	26; 845; 866; 3271; 3727; 3934
TspEI	!AATT	11	18; 1398; 1544; 1608; 1686; 1712; 1723; 2370; 2442; 2534; 3952
TspGWI	ACGGANNNNNNNNNNN!	1	3669
TspGWI	!NNNNNNNNNTCCGT	1	602
TspMI	C!CCGGG	1	1425
TspRI	CASTGNN!	5	1640; 2923; 4033; 4304; 4317
TstI	CACNNNNNNNTCCNNNNNNNNNNNNNNNNNN!	0	
TstI	!NNNNNNNGGANNNNNNNNGTG	0	
TstI	GGANNNNNNGTGNNNNNNNNNNNNNNNNNN!	0	
TstI	!NNNNNNNNNCACNNNNNNNTCC	0	
Tth111I	GACN!NNGTC	1	2912
Tth111II	CAARCANNNNNNNNNNN!	2	897; 4121
Tth111II	!NNNNNNNNNTGYTTG	3	3229; 4089; 4128

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
UnbI	!GGNCC	14	82; 275; 815; 1058; 1150; 1171; 1255; 1422; 1900; 3309; 3754; 3800; 3858; 3891
Van9II	CCANNNN!NTGG	1	1265
Vha464I	C!TTAAG	0	
VneI	G!TGCAC	2	746; 4398
VpaK11AI	!GGWCC	3	1255; 3309; 3754
VpaK11BI	G!GWCC	3	1256; 3310; 3755
VspI	AT!TAAT	1	7
XagI	CCTNN!NNNAGG	0	
XapI	R!AATTY	4	1398; 1608; 1712; 1723
XbaI	T!CTAGA	1	1441
XceI	RCATG!Y	6	698; 1144; 2364; 2436; 3199; 4716
XcmI	CCANNNNN!NNNNTGG	0	
XhoI	C!TCGAG	0	
XhoII	R!GATCY	11	585; 1206; 1429; 1438; 2965; 3211; 3603; 3962; 3974; 4060; 4071
XmaI	C!CCGGG	1	1425
XmaJI	C!CTAGG	2	2616; 3631
XmiI	GT!MKAC	2	1246; 1409
XmnI	GAANN!NNTTC	0	
XspI	C!TAG	8	592; 1442; 1643; 2061; 2617; 3632; 3966; 4219
ZraI	GAC!GTC	4	123; 176; 259; 445
ZrmI	AGT!ACT	0	
Zsp2I	ATGCA!T	3	2366; 2438; 4769