

## Gateway® Case12-mito entry clone

### Table of restriction sites

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AanI	TTA!TAA	4	83; 1523; 1722; 1927
AarI	CACCTGCNNNN!	0	
AarI	!NNNNNNNNGCAGGTG	0	
AasI	GACNNNN!NNGTC	4	1431; 2010; 2966; 4755
AatI	AGG!CCT	1	2760
AatII	GACGT!C	0	
AbsI	CC!TCGAGG	0	
AccI	GT!MKAC	0	
AccII	CG!CG	19	185; 187; 499; 919; 1028; 1483; 1863; 2239; 2259; 2283; 2314; 3005; 3306; 3744; 3828; 3891; 3960; 4233; 4814
AccIII	T!CCGGA	0	
Acc16I	TGC!GCA	1	3041
Acc36I	ACCTGCNNNN!	2	3207; 3657
Acc36I	!NNNNNNNNGCAGGT	1	2826
Acc65I	G!GTACC	0	
AccB1I	G!GYRCC	7	588; 626; 1101; 1209; 2092; 2938; 2973
AccB7I	CCANNNN!NTGG	1	203
AccBSI	CCG!CTC	2	2363; 3552
AccBSI	GAG!CGG	2	2199; 3606
AceIII	CAGCTCNNNNNNN!	2	396; 1895
AceIII	!NNNNNNNNNNGAGCTG	4	546; 597; 630; 951
AciI	C!CGC	34	135; 183; 356; 529; 532; 809; 850; 917; 956; 1481; 2254; 2257; 2271; 2361; 2609; 2621; 2630; 2642; 2652; 2663; 2709; 2848; 2911; 3413; 3458; 3524; 3550; 3675; 3678; 3826; 3958; 4265; 4409; 4905
AciI	G!CGG	25	146; 170; 577; 583; 1477; 2199; 2226; 2314; 2424; 3005; 3069; 3170; 3173; 3453; 3508; 3606; 3744; 3891; 4031; 4274; 4519; 4640; 4659; 4786; 4814
AclI	AA!CGTT	0	
AclWI	GGATCNNNN!	9	217; 546; 2807; 3118; 3364; 3756; 4115; 4213; 4299
AclWI	!NNNNNGATCC	7	188; 204; 347; 3183; 3727; 4114; 4211
AcoI	Y!GGCCR	7	313; 662; 1478; 2845; 3019; 3410; 3437
AcsI	R!AATY	6	1059; 1227; 1446; 1753; 1857; 1868
AcuI	CTGAAGNNNNNNNNNNNNNNNN!	5	744; 816; 987; 3085; 3517
AcuI	!NNNNNNNNNNNNNNCTTCAG	1	4315
AcvI	CAC!GTG	0	
AcyI	GR!CGYC	4	132; 2939; 3641; 3720
AdeI	CACNNN!GTG	1	2055
AfaI	GT!AC	6	98; 564; 1020; 1453; 1508; 3245
AfeI	AGC!GCT	0	
AfiI	CCNNNNN!NNGG	19	203; 535; 760; 923; 1951; 2277; 2669; 2920; 3464; 3745; 3777; 3909; 3944; 3994; 4026; 4379; 4658; 4824; 4842
AfII	C!TTAAG	1	1821
AfIII	A!CRYGT	2	1026; 4857
AgeI	A!CCGGT	1	215
AgsI	TTS!AA	10	350; 845; 893; 983; 1064; 2350; 2394; 2404; 2817; 4393
AhdI	GACNNN!NNGTC	0	
AhlI	A!CTAGT	0	
AjiI	CAC!GTC	2	237; 1349
AjiI	GAC!GTG	0	
AjnI	!CCWGG	14	634; 759; 871; 946; 1000; 2473; 2528; 2545; 3324; 3903; 4006; 4696; 4709; 4830
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	3	621; 771; 948
AlfI	GCANNNNNNTGCNNNNNNNNNNNN!	2	2513; 2585
AlfI	!NNNNNNNNNNGCANNNNNNNTGC	2	2479; 2551
AloI	GAACNNNNNNNTCCNNNNNNNNNNNN!	1	2021
AloI	!NNNNNNNNGGANNNNNNNGTTC	0	
AloI	GGANNNNNNNGTTCNNNNNNNNNNNN!	0	
AloI	!NNNNNNNGAACNNNNNNNTCC	1	1989
AluI	AG!CT	26	273; 289; 386; 460; 560; 611; 644; 716; 728; 749; 965; 1013; 1037; 1164; 1499; 1718; 1885; 2142; 2437; 2725; 3045; 3503; 4300; 4557; 4603; 4693
AluBI	AG!CT	26	273; 289; 386; 460; 560; 611; 644; 716; 728; 749; 965; 1013; 1037; 1164; 1499; 1718; 1885; 2142; 2437; 2725; 3045; 3503; 4300; 4557; 4603; 4693
AlwI	GGATCNNNN!	9	217; 546; 2807; 3118; 3364; 3756; 4115; 4213; 4299
AlwI	!NNNNNGATCC	7	188; 204; 347; 3183; 3727; 4114; 4211
Alw21I	GWGCW!C	4	291; 3052; 3242; 4547
Alw26I	GTCTCN!	0	
Alw26I	!NNNNNGAGAC	5	1417; 2363; 2781; 3800; 3928
Alw44I	G!TGCAC	1	4543
AlwNI	CAGNNN!CTG	3	1164; 4040; 4448
Ama87I	C!YCGRG	1	294
Aor13HI	T!CCGGA	0	
Aor51HI	AGC!GCT	0	
ApaI	GGGCC!C	0	
ApaBI	GCANNNNN!TGC	3	2507; 2579; 4041
ApaLI	G!TGCAC	1	4543
ApeKI	G!CWGC	25	111; 137; 140; 143; 376; 383; 434; 437; 595; 749; 830; 1332; 1715; 2234; 2899; 3000; 3042; 3083; 3176; 3563; 4016; 4242; 4448; 4451; 4516
ApoI	R!AATTY	6	1059; 1227; 1446; 1753; 1857; 1868
ApyPI	ATCGACNNNNNNNNNNNNNNNNNNNN!	1	3454
ApyPI	!NNNNNNNNNNNNNNNNNNNNGTCGAT	3	3248; 3901; 4739
AquII	GCCGNACNNNNNNNNNNNNNNNNNNNN!	1	3338
AquII	!NNNNNNNNNNNNNNNNNNNNGTNCGGC	1	661
AquIII	GAGGAGNNNNNNNNNNNNNNNNNNNN!	2	631; 2767
AquIII	!NNNNNNNNNNNNNNNNNNNCTCCTC	0	
AquIV	GRGGAAGNNNNNNNNNNNNNNNNNNNN!	0	
AquIV	!NNNNNNNNNNNNNNNNNNNCTCCYC	2	1202; 3509
ArsI	GACNNNNNTTYGNNNNNNNNNNNN!	0	
ArsI	!NNNNNNCRAANNNNNNNGTC	1	853
ArsI	CRAANNNNNNGTCNNNNNNNNNNNN!	1	885
ArsI	!NNNNNNNNGACNNNNNNNTTYG	0	
AscI	GG!CGGCC	0	
AseI	AT!TAAT	0	
Asi256I	G!ATC	26	194; 210; 353; 501; 539; 731; 1032; 1181; 1400; 1597; 2777; 2781; 2800; 3111; 3189; 3270; 3279; 3357; 3733; 3749; 4108; 4120; 4198; 4206; 4217; 4292
AsiGI	A!CCGGT	1	215
AsiSI	GCGAT!CGC	0	
AspI	GACN!NNGTC	1	3057
Asp700I	GAANN!NNTTC	1	801
Asp718I	G!GTACC	0	
AspA2I	C!CTAGG	2	2761; 3776
AspEI	GACNN!NNGTC	0	
AspLEI	GCG!C	25	187; 189; 499; 880; 921; 2205; 2213; 2239; 2261; 2270; 2283; 2314; 2933; 2941; 3005; 3042; 3308; 3568; 3744; 3830; 4233; 4342; 4516; 4616; 4683
AspS9I	G!GNCC	11	164; 426; 509; 763; 1492; 2046; 3455; 3900; 3946; 4004; 4037
AssI	AGT!ACT	0	
AsuII	TT!CGAA	1	3621
AsuC2I	CC!SGG	7	167; 536; 620; 2943; 3103; 3716; 4480
AsuHPI	GGTGANNNNNNNNN!	4	938; 962; 4010; 4126
AsuHPI	!NNNNNNNTCACC	3	608; 2056; 3117
AsuNHI	G!CTAGC	1	114
AvaI	C!YCGRG	1	294
AvaII	G!GWCC	4	509; 1492; 3455; 3900

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AviII	TGC!GCA	1	3041
AvrII	C!CTAGG	2	2761; 3776
AxyI	CC!TNAGG	2	2419; 4051
BaeI	ACNNNGTAYCNNNNNNNNNN!	0	
BaeI	!NNNNNNNGRTACNNNGT	0	
BaeI	GRTACNNNGTNNNNNNNNNN!	0	
BaeI	!NNNNNNNNNACNNNGTAYC	0	
BaeGI	GKGC!C	6	631; 760; 1009; 2885; 2978; 4547
BalI	TGG!CCA	1	3021
BamHI	G!GATCC	1	209
BanI	G!GYRCC	7	588; 626; 1101; 1209; 2092; 2938; 2973
BanII	GRGCY!C	4	291; 2130; 3304; 4014
BanIII	AT!CGAT	1	2779
BarI	GAAGNNNNNTACNNNNNNNNNN!	1	1467
BarI	!NNNNNNNGTANNNNNNCTTC	0	
BarI	GTANNNNNNCTTCNNNNNNNNNN!	0	
BarI	!NNNNNNNGAAGNNNNNTAC	1	1435
BasI	CCANNN!NTGG	1	203
BauI	C!ACGAG	2	3657; 4684
BauI	C!TCGTG	2	771; 3531
BbeI	GGCG!C	1	2942
Bbr7I	GAAGACNNNNNN!	0	
Bbr7I	!NNNNNNNNNNNGTCTTC	0	
BbrPI	CAC!GTG	0	
BbsI	GAAGACNN!	0	
BbsI	!NNNNNGTCTTC	0	
BbuI	GCATG!C	3	2509; 2581; 3344
BbvI	GCAGCNNNNNNNN!	10	388; 607; 842; 1344; 1727; 3012; 3054; 3575; 4028; 4528
BbvI	!NNNNNNNNNNNGCTGC	10	98; 124; 421; 736; 2221; 2886; 3070; 3163; 4229; 4435
Bbv12I	GWGCW!C	4	291; 3052; 3242; 4547
BbvCI	CC!TCAGC	0	
BbvCI	GC!TGAGG	0	
BccI	CCATCNNNN!	8	423; 639; 891; 1113; 2069; 2633; 3159; 3661
BccI	!NNNNNGATGG	9	567; 1086; 1194; 1235; 1305; 1413; 2037; 2817; 3245
BceAI	ACGGCNNNNNNNNNN!	10	347; 389; 440; 665; 725; 806; 917; 1007; 3365; 3852
BceAI	!NNNNNNNNNNNGCCGT	3	2080; 2898; 4357
BceFI	ACGGCNNNNNNNNNN!	10	347; 389; 440; 665; 725; 806; 917; 1007; 3365; 3852
BceFI	!NNNNNNNNNNNGCCGT	3	2081; 2899; 4358
BcgI	CGANNNNNNTGCNNNNNNNNNN!	1	715
BcgI	!NNNNNNNNNGCANNNNNTCG	0	
BcgI	GCANNNNNNTGCNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNCGANNNNNNTGC	1	681
BciVI	GTATCCNNNNN!	3	2368; 3158; 4659
BciVI	!NNNNNGGATAC	0	
BclI	T!GATCA	3	1031; 1180; 1399
BcnI	CC!SGG	7	167; 536; 620; 2943; 3103; 3716; 4480
BcuI	A!CTAGT	0	
BdaI	TGANNNNNNTCANNNNNNNNNN!	1	4792
BdaI	!NNNNNNNNNTGANNNNNNTCA	1	4758
BfaI	C!TAG	10	115; 1246; 1489; 1594; 1788; 2206; 2762; 3777; 4111; 4364
BfiI	ACTGGGNNNNN!	2	1152; 2888
BfiI	!NNNCCCAGT	2	171; 2640
BfmI	C!TRYAG	4	274; 2274; 4401; 4592
BfoI	RGCGC!Y	4	2206; 2214; 2942; 4617
BfrI	C!TTAAG	1	1821
BfuI	GTATCCNNNNN!	3	2368; 3158; 4659
BfuI	!NNNNNGGATAC	0	
BfuAI	ACCTGCNNNN!	2	3207; 3657
BfuAI	!NNNNNNNNGACAGGT	1	2826
BfuCI	!GATC	26	193; 209; 352; 500; 538; 730; 1031; 1180; 1399; 1596; 2776; 2780; 2799; 3110; 3188; 3269; 3278; 3356; 3732; 3748; 4107; 4119; 4197; 4205; 4216; 4291
BglI	GCCNNNN!NGGC	1	2714
BglII	A!GATCT	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BisI	GC!NGC	43	112; 138; 141; 144; 171; 183; 377; 384; 435; 438; 532; 596; 750; 831; 1333; 1481; 1716; 2235; 2257; 2271; 2709; 2848; 2900; 2911; 3001; 3006; 3043; 3084; 3171; 3177; 3413; 3509; 3550; 3564; 3678; 4017; 4032; 4243; 4449; 4452; 4517; 4660; 4815
BlnI	C!CTAGG	2	2761; 3776
BlpI	GC!TNAGC	1	285
BlsI	GCN!GC	43	113; 139; 142; 145; 172; 184; 378; 385; 436; 439; 533; 597; 751; 832; 1334; 1482; 1717; 2236; 2258; 2272; 2710; 2849; 2901; 2912; 3002; 3007; 3044; 3085; 3172; 3178; 3414; 3510; 3551; 3565; 3679; 4018; 4033; 4244; 4450; 4453; 4518; 4661; 4816
BmcAI	AGT!ACT	0	
Bme18I	G!GWCC	4	509; 1492; 3455; 3900
Bme1390I	CC!NGG	21	167; 536; 620; 636; 761; 873; 948; 1002; 2475; 2530; 2547; 2943; 3103; 3326; 3716; 3905; 4008; 4480; 4698; 4711; 4832
BmeRI	GACNNN!NNGTC	0	
BmeT110I	C!YCGRG	1	294
BmgBI	CAC!GTC	2	237; 1349
BmgBI	GAC!GTG	0	
BmgT120I	GG!NCC	11	165; 427; 510; 764; 1493; 2047; 3456; 3901; 3947; 4005; 4038
BmiI	GGN!NCC	21	174; 211; 428; 590; 628; 1103; 1211; 1494; 2094; 2115; 2127; 2318; 2479; 2551; 2940; 2975; 3823; 3902; 3947; 4790; 4829
BmrI	ACTGGGNNNNN!	2	1152; 2888
BmrI	!NNNNCCCAGT	2	171; 2640
BmrFI	CC!NGG	21	167; 536; 620; 636; 761; 873; 948; 1002; 2475; 2530; 2547; 2943; 3103; 3326; 3716; 3905; 4008; 4480; 4698; 4711; 4832
BmsI	GCATCNNNNN!	9	343; 967; 982; 1755; 2518; 2590; 3238; 3302; 3577
BmsI	!NNNNNNNNNGATGC	6	689; 1184; 2897; 3152; 3368; 4760
BmtI	GCTAG!C	1	118
BmuI	ACTGGGNNNNN!	2	1152; 2888
BmuI	!NNNNCCCAGT	2	171; 2640
BoxI	GACNN!NNGTC	0	
BpiI	GAAGACNN!	0	
BpiI	!NNNNNNGTCTTC	0	
BpI	GAGNNNNCTCNNNNNNNNNNNNN!	2	2728; 3627
BpI	!NNNNNNNNGAGNNNNNCTC	2	2696; 3595
BpmI	CTGGAGNNNNNNNNNNNNNNN!	3	537; 1035; 3779
BpmI	!NNNNNNNNNNNNNNCTCCAG	1	3722
Bpu10I	CC!TNAGC	2	456; 474
Bpu10I	GC!TNAGG	0	
Bpu14I	TT!CGAA	1	3621
Bpu1102I	GC!TNAGC	1	285
BpuAI	GAAGACNN!	0	
BpuAI	!NNNNNNGTCTTC	0	
BpuEI	CTTGAGNNNNNNNNNNNNNNN!	2	4233; 4772
BpuEI	!NNNNNNNNNNNNNNCTCAAG	2	3315; 4474
BpuMI	CC!SGG	7	167; 536; 620; 2943; 3103; 3716; 4480
BpvUI	CGAT!CG	0	
BsaI	GGTCTCN!	0	
BsaI	!NNNNNGAGACC	1	3928
Bsa29I	AT!CGAT	1	2779
BsaAI	YAC!GTR	2	2055; 3243
BsaBI	GATNN!NNATC	2	1601; 2798
BsaHI	GR!CGYC	4	132; 2939; 3641; 3720
BsaJI	C!CNNGG	20	619; 759; 782; 922; 946; 1001; 2473; 2545; 2668; 2703; 2712; 2761; 3102; 3371; 3776; 3903; 3904; 4006; 4007; 4697
BsaMI	GAATGCN!	1	1690
BsaMI	G!CATTC	2	1290; 1783
BsaWI	W!CCGGW	5	215; 2970; 3814; 4504; 4651
BsaXI	ACNNNNNCTCCNNNNNNNNNN!	1	2019
BsaXI	!NNNNNNNNGGAGNNNNNNGT	0	
BsaXI	GGAGNNNNNNGTNNNNNNNNNN!	0	
BsaXI	!NNNNNNNNNACNNNNNCTCC	1	1989
BsbI	CAACACNNNNNNNNNNNNNNNNN!	1	1048
BsbI	!NNNNNNNNNNNNNNNNNNGTGTG	2	1940; 3847

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Bsc4I	CCNNNNN!NNGG	19	203; 535; 760; 923; 1951; 2277; 2669; 2920; 3464; 3745; 3777; 3909; 3944; 3994; 4026; 4379; 4658; 4824; 4842
BscAI	GCATCNNNN!	9	342; 966; 981; 1754; 2517; 2589; 3237; 3301; 3576
BscAI	!NNNNNNGATGC	6	692; 1187; 2900; 3155; 3371; 4763
BseI	ACTGGN!	4	1147; 2883; 3084; 4330
BseI	C!CAGT	6	177; 464; 1968; 2646; 4442; 4455
Bse8I	GATNN!NNATC	2	1601; 2798
Bse21I	CC!TNAGG	2	2419; 4051
Bse118I	R!CCGGY	7	215; 591; 741; 2156; 3258; 3439; 3722
BseAI	T!CCGGA	0	
BseBI	CC!WGG	14	636; 761; 873; 948; 1002; 2475; 2530; 2547; 3326; 3905; 4008; 4698; 4711; 4832
BseCI	AT!CGAT	1	2779
BseDI	C!CNNGG	20	619; 759; 782; 922; 946; 1001; 2473; 2545; 2668; 2703; 2712; 2761; 3102; 3371; 3776; 3903; 3904; 4006; 4007; 4697
Bse3DI	GCAATGNN!	3	77; 1322; 3172
Bse3DI	!CATTGC	1	1531
BseGI	GGATGNN!	7	578; 1199; 1316; 2799; 3256; 3281; 3735
BseGI	!CATCC	3	631; 997; 2625
BseJI	GATNN!NNATC	2	1601; 2798
BseLI	CCNNNNN!NNGG	19	203; 535; 760; 923; 1951; 2277; 2669; 2920; 3464; 3745; 3777; 3909; 3944; 3994; 4026; 4379; 4658; 4824; 4842
BseMI	GCAATGNN!	3	77; 1322; 3172
BseMI	!CATTGC	1	1531
BseMII	CTCAGNNNNNNNNNN!	1	4065
BseMII	!NNNNNNNNNCTGAG	8	276; 447; 465; 2410; 2712; 3593; 4165; 4574
BseNI	ACTGGN!	4	1147; 2883; 3084; 4330
BseNI	C!CAGT	6	177; 464; 1968; 2646; 4442; 4455
BsePI	G!CGCGC	1	185
BseRI	GAGGAGNNNNNNNNNN!	2	621; 2757
BseRI	!NNNNNNNNNCTCCTC	0	
BseSI	GKGCN!C	6	631; 760; 1009; 2885; 2978; 4547
BseXI	GCAGCNNNNNNNN!	10	388; 607; 842; 1344; 1727; 3012; 3054; 3575; 4028; 4528
BseXI	!NNNNNNNNNNNGCTGC	10	98; 124; 421; 736; 2221; 2886; 3070; 3163; 4229; 4435
BseX3I	C!GGCCG	2	1478; 2845
BseYI	C!CCAGC	4	1495; 2482; 2554; 4553
BseYI	G!CTGGG	1	3443
BsgI	GTGCAGNNNNNNNNNNNNNN!	2	402; 1351
BsgI	!NNNNNNNNNNNNNCTGCAC	1	719
Bsh1236I	CG!CG	19	185; 187; 499; 919; 1028; 1483; 1863; 2239; 2259; 2283; 2314; 3005; 3306; 3744; 3828; 3891; 3960; 4233; 4814
Bsh1285I	CGRY!CG	4	220; 1481; 2848; 4523
BshFI	GG!CC	25	165; 315; 342; 427; 664; 764; 793; 1480; 1905; 2047; 2702; 2708; 2717; 2760; 2847; 3021; 3412; 3439; 3948; 4005; 4038; 4383; 4817; 4835; 4846
BshNI	G!GYRCC	7	588; 626; 1101; 1209; 2092; 2938; 2973
BshTI	A!CCGGT	1	215
BshVI	AT!CGAT	1	2779
BsiEI	CGRY!CG	4	220; 1481; 2848; 4523
BsiHKAI	GWGCW!C	4	291; 3052; 3242; 4547
BsiHKCI	C!YCGRG	1	294
BsiSI	C!CGG	23	167; 216; 535; 592; 619; 682; 742; 2157; 2844; 2921; 2943; 2971; 3102; 3192; 3259; 3440; 3715; 3723; 3815; 4289; 4479; 4505; 4652
BsiWI	C!GTACG	0	
BsII	CCNNNNN!NNGG	19	203; 535; 760; 923; 1951; 2277; 2669; 2920; 3464; 3745; 3777; 3909; 3944; 3994; 4026; 4379; 4658; 4824; 4842
BsIFI	GGGACNNNNNNNNNN!	3	3090; 3622; 3731
BsIFI	!NNNNNNNNNNNNNGTCCC	4	2455; 2527; 2591; 3886
BsmI	GAATGCN!	1	1690
BsmI	G!CATTC	2	1290; 1783
BsmAI	GTCTCN!	0	
BsmAI	!NNNNNGAGAC	5	1417; 2363; 2781; 3800; 3928
BsmBI	CGTCTCN!	0	
BsmBI	!NNNNNGAGACG	1	1417
BsmFI	GGGACNNNNNNNNNN!	3	3090; 3622; 3731

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BsmFI	!NNNNNNNNNNNNNGTCCC	4	2455; 2527; 2591; 3886
BsnI	GG!CC	25	165; 315; 342; 427; 664; 764; 793; 1480; 1905; 2047; 2702; 2708; 2717; 2760; 2847; 3021; 3412; 3439; 3948; 4005; 4038; 4383; 4817; 4835; 4846
Bso31I	GGTCTCN!	0	
Bso31I	!NNNNNGAGACC	1	3928
BsoBI	C!YCGRG	1	294
Bsp13I	T!CCGGA	0	
Bsp19I	C!CATGG	2	2668; 3371
Bsp24I	GACNNNNNTGGNNNNNNNNNN!	1	3742
Bsp24I	!NNNNNNCCANNNNNNNGTC	2	4163; 4341
Bsp24I	CCANNNNNGTCNNNNNNNNNN!	2	4195; 4373
Bsp24I	!NNNNNNNGACNNNNNTGG	1	3710
Bsp68I	TCG!CGA	0	
Bsp119I	TT!CGAA	1	3621
Bsp120I	G!GGCCC	0	
Bsp143I	!GATC	26	193; 209; 352; 500; 538; 730; 1031; 1180; 1399; 1596; 2776; 2780; 2799; 3110; 3188; 3269; 3278; 3356; 3732; 3748; 4107; 4119; 4197; 4205; 4216; 4291
Bsp1286I	GDGCH!C	12	291; 631; 760; 1009; 2130; 2885; 2978; 3052; 3242; 3304; 4014; 4547
Bsp1407I	T!GTACA	3	96; 562; 1506
Bsp1720I	GC!TNAGC	1	285
BspACI	C!CGC	34	135; 183; 356; 529; 532; 809; 850; 917; 956; 1481; 2254; 2257; 2271; 2361; 2609; 2621; 2630; 2642; 2652; 2663; 2709; 2848; 2911; 3413; 3458; 3524; 3550; 3675; 3678; 3826; 3958; 4265; 4409; 4905
BspACI	G!CGG	25	146; 170; 577; 583; 1477; 2199; 2226; 2314; 2424; 3005; 3069; 3170; 3173; 3453; 3508; 3606; 3744; 3891; 4031; 4274; 4519; 4640; 4659; 4786; 4814
BspCNI	CTCAGNNNNNNNN!	1	4064
BspCNI	!NNNNNNNCTGAG	8	277; 448; 466; 2411; 2713; 3594; 4166; 4575
BspDI	AT!CGAT	1	2779
BspD6I	GACTCNNNN!	4	1493; 2012; 3618; 4495
BspD6I	!NNNNNGAGTC	3	1290; 1975; 2407
BspEI	T!CCGGA	0	
BspFNI	CG!CG	19	185; 187; 499; 919; 1028; 1483; 1863; 2239; 2259; 2283; 2314; 3005; 3306; 3744; 3828; 3891; 3960; 4233; 4814
BspHI	T!CATGA	4	1132; 1351; 2365; 4137
BspLI	GGN!NCC	21	174; 211; 428; 590; 628; 1103; 1211; 1494; 2094; 2115; 2127; 2318; 2479; 2551; 2940; 2975; 3823; 3902; 3947; 4790; 4829
BspMI	ACCTGCNNNN!	2	3207; 3657
BspMI	!NNNNNNNGCAGGT	1	2826
BspOI	GCTAG!C	1	118
BspPI	GGATCNNNN!	9	217; 546; 2807; 3118; 3364; 3756; 4115; 4213; 4299
BspPI	!NNNNNGATCC	7	188; 204; 347; 3183; 3727; 4114; 4211
BspQI	GCTCTCN!	0	
BspQI	!NNNNGAAGAGC	2	3283; 3493
BspTI	C!TTAAG	1	1821
BspT104I	TT!CGAA	1	3621
BspT107I	G!GYRCC	7	588; 626; 1101; 1209; 2092; 2938; 2973
BspTNI	GGTCTCN!	0	
BspTNI	!NNNNNGAGACC	1	3928
BsrI	ACTGGN!	4	1147; 2883; 3084; 4330
BsrI	C!CAGT	6	177; 464; 1968; 2646; 4442; 4455
BsrBI	CCG!CTC	2	2363; 3552
BsrBI	GAG!CGG	2	2199; 3606
BsrDI	GCAATGNN!	3	77; 1322; 3172
BsrDI	!CATTGC	1	1531
BsrFI	R!CCGGY	7	215; 591; 741; 2156; 3258; 3439; 3722
BsrGI	T!GTACA	3	96; 562; 1506
BsrSI	ACTGGN!	4	1147; 2883; 3084; 4330
BsrSI	C!CAGT	6	177; 464; 1968; 2646; 4442; 4455
BssAI	R!CCGGY	7	215; 591; 741; 2156; 3258; 3439; 3722
BssECI	C!CNNGG	20	619; 759; 782; 922; 946; 1001; 2473; 2545; 2668; 2703; 2712; 2761; 3102; 3371; 3776; 3903; 3904; 4006; 4007; 4697

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BssHII	G!CGCGC	1	185
BssKI	!CCNGG	21	165; 534; 618; 634; 759; 871; 946; 1000; 2473; 2528; 2545; 2941; 3101; 3324; 3714; 3903; 4006; 4478; 4696; 4709; 4830
BssMI	!GATC	26	193; 209; 352; 500; 538; 730; 1031; 1180; 1399; 1596; 2776; 2780; 2799; 3110; 3188; 3269; 3278; 3356; 3732; 3748; 4107; 4119; 4197; 4205; 4216; 4291
BssNI	GR!CGYC	4	132; 2939; 3641; 3720
BssNAI	GTA!TAC	0	
BssSI	C!ACGAG	2	3657; 4684
BssSI	C!TCGTG	2	771; 3531
BssT1I	C!CWWGG	4	2668; 2761; 3371; 3776
Bst6I	CTCTTCN!	0	
Bst6I	!NNNNGAAGAG	3	2406; 3283; 3493
Bst98I	C!TTAAG	1	1821
Bst1107I	GTA!TAC	0	
BstACI	GR!CGYC	4	132; 2939; 3641; 3720
BstAFI	C!TTAAG	1	1821
BstAPI	GCANNN!NTGC	3	2506; 2578; 4040
BstAUI	T!GTACA	3	96; 562; 1506
BstBI	TT!CGAA	1	3621
Bst2BI	C!ACGAG	2	3657; 4684
Bst2BI	C!TCGTG	2	771; 3531
BstBAI	YAC!GTR	2	2055; 3243
Bst4CI	ACN!GT	9	1130; 2030; 3319; 3435; 3543; 3866; 4357; 4827; 4898
BstC8I	GCN!NGC	32	109; 116; 187; 381; 388; 714; 747; 809; 2158; 2201; 2215; 2488; 2507; 2560; 2579; 2833; 3019; 3238; 3304; 3310; 3342; 3383; 3387; 3441; 3724; 3911; 3958; 4014; 4036; 4247; 4807; 4844
BstDEI	C!TNAG	10	285; 456; 474; 1361; 2419; 2721; 3602; 4051; 4174; 4583
BstDSI	C!CRYGG	2	2668; 3371
BstEII	G!GTNACC	0	
BstENI	CCTNN!NNNAGG	0	
BstF5I	GGATGNN!	7	578; 1199; 1316; 2799; 3256; 3281; 3735
BstF5I	!CATCC	3	631; 997; 2625
BstFNI	CG!CG	19	185; 187; 499; 919; 1028; 1483; 1863; 2239; 2259; 2283; 2314; 3005; 3306; 3744; 3828; 3891; 3960; 4233; 4814
BstH2I	RGCGC!Y	4	2206; 2214; 2942; 4617
BstHHI	GCG!C	25	187; 189; 499; 880; 921; 2205; 2213; 2239; 2261; 2270; 2283; 2314; 2933; 2941; 3005; 3042; 3308; 3568; 3744; 3830; 4233; 4342; 4516; 4616; 4683
BstKTI	GAT!C	26	196; 212; 355; 503; 541; 733; 1034; 1183; 1402; 1599; 2779; 2783; 2802; 3113; 3191; 3272; 3281; 3359; 3735; 3751; 4110; 4122; 4200; 4208; 4219; 4294
BstMAI	GTCTCN!	0	
BstMAI	!NNNNNGAGAC	5	1417; 2363; 2781; 3800; 3928
BstMBI	!GATC	26	193; 209; 352; 500; 538; 730; 1031; 1180; 1399; 1596; 2776; 2780; 2799; 3110; 3188; 3269; 3278; 3356; 3732; 3748; 4107; 4119; 4197; 4205; 4216; 4291
BstMCI	CGRY!CG	4	220; 1481; 2848; 4523
BstMWI	GCNNNN!NNGC	29	140; 157; 179; 270; 595; 682; 742; 755; 799; 1034; 2166; 2196; 2223; 2265; 2506; 2578; 2629; 2708; 2930; 3014; 3037; 3176; 3299; 3382; 3649; 3836; 4040; 4239; 4811
BstNI	CC!WGG	14	636; 761; 873; 948; 1002; 2475; 2530; 2547; 3326; 3905; 4008; 4698; 4711; 4832
BstNSI	RCATG!Y	5	122; 2509; 2581; 3344; 4861
BstOI	CC!WGG	14	636; 761; 873; 948; 1002; 2475; 2530; 2547; 3326; 3905; 4008; 4698; 4711; 4832
BstPI	G!GTNACC	0	
BstPAI	GACNN!NNGTC	0	
BstSCI	!CCNGG	21	165; 534; 618; 634; 759; 871; 946; 1000; 2473; 2528; 2545; 2941; 3101; 3324; 3714; 3903; 4006; 4478; 4696; 4709; 4830
BstSFI	C!TRYAG	4	274; 2274; 4401; 4592
BstSLI	GKGCMI!C	6	631; 760; 1009; 2885; 2978; 4547
BstSNI	TAC!GTA	0	
BstUI	CG!CG	19	185; 187; 499; 919; 1028; 1483; 1863; 2239; 2259; 2283; 2314; 3005; 3306; 3744; 3828; 3891; 3960; 4233; 4814

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Bst2UI	CC!WGG	14	636; 761; 873; 948; 1002; 2475; 2530; 2547; 3326; 3905; 4008; 4698; 4711; 4832
BstV1I	GCAGCNNNNNNNN!	10	388; 607; 842; 1344; 1727; 3012; 3054; 3575; 4028; 4528
BstV1I	!NNNNNNNNNNNGCTGC	10	98; 124; 421; 736; 2221; 2886; 3070; 3163; 4229; 4435
BstV2I	GAAGACNN!	0	
BstV2I	!NNNNNNGTCTTC	0	
BstXI	CCANNNNN!NTGG	0	
BstX2I	R!GATCY	10	193; 209; 352; 3110; 3356; 3748; 4107; 4119; 4205; 4216
BstYI	R!GATCY	10	193; 209; 352; 3110; 3356; 3748; 4107; 4119; 4205; 4216
BstZI	C!GGCCG	2	1478; 2845
BstZ17I	GTA!TAC	0	
BsuI	GTATCCNNNNNN!	3	2368; 3158; 4659
BsuI	!NNNNNNGGATAC	0	
Bsu15I	AT!CGAT	1	2779
Bsu36I	CC!TNAGG	2	2419; 4051
BsuRI	GG!CC	25	165; 315; 342; 427; 664; 764; 793; 1480; 1905; 2047; 2702; 2708; 2717; 2760; 2847; 3021; 3412; 3439; 3948; 4005; 4038; 4383; 4817; 4835; 4846
BsuTUI	AT!CGAT	1	2779
BtgI	C!CRYGG	2	2668; 3371
BtgZI	GCGATGNNNNNNNNNN!	4	712; 1111; 2056; 3391
BtgZI	!NNNNNNNNNNNNNNCATCGC	2	3210; 3554
BthCI	GCNG!C	43	114; 140; 143; 146; 173; 185; 379; 386; 437; 440; 534; 598; 752; 833; 1335; 1483; 1718; 2237; 2259; 2273; 2711; 2850; 2902; 2913; 3003; 3008; 3045; 3086; 3173; 3179; 3415; 3511; 3552; 3566; 3680; 4019; 4034; 4245; 4451; 4454; 4519; 4662; 4817
BtrI	CAC!GTC	2	237; 1349
BtrI	GAC!GTG	0	
BtsI	GCAGTGNN!	0	
BtsI	!CACTGC	1	1778
BtsCI	GGATGNN!	7	578; 1199; 1316; 2799; 3256; 3281; 3735
BtsCI	!CATCC	3	631; 997; 2625
BtuMI	TCG!CGA	0	
BveI	ACCTGCNNNN!	2	3207; 3657
BveI	!NNNNNNNNGCAGGT	1	2826
Cac8I	GCN!NGC	32	109; 116; 187; 381; 388; 714; 747; 809; 2158; 2201; 2215; 2488; 2507; 2560; 2579; 2833; 3019; 3238; 3304; 3310; 3342; 3383; 3387; 3441; 3724; 3911; 3958; 4014; 4036; 4247; 4807; 4844
CaiI	CAGNNN!CTG	3	1164; 4040; 4448
CciI	T!CATGA	4	1132; 1351; 2365; 4137
CciNI	GC!GGCCGC	1	1478
CdiI	CATC!G	7	419; 962; 977; 3228; 3233; 3431; 3572
CdiI	C!GATG	4	698; 1097; 2042; 3377
CdpI	GCGGAGNNNNNNNNNNNNNNNNNNNN!	1	4811
CdpI	!NNNNNNNNNNNNNNNNNNNNCTCCGC	2	2600; 2642
CelII	GC!TNAGC	1	285
CfoI	GCG!C	25	187; 189; 499; 880; 921; 2205; 2213; 2239; 2261; 2270; 2283; 2314; 2933; 2941; 3005; 3042; 3308; 3568; 3744; 3830; 4233; 4342; 4516; 4616; 4683
CfrI	Y!GGCCR	7	313; 662; 1478; 2845; 3019; 3410; 3437
Cfr9I	C!CCGGG	0	
Cfr10I	R!CCGGY	7	215; 591; 741; 2156; 3258; 3439; 3722
Cfr13I	G!GNCC	11	164; 426; 509; 763; 1492; 2046; 3455; 3900; 3946; 4004; 4037
Cfr42I	CCGC!GG	0	
ChaI	GATC!	26	197; 213; 356; 504; 542; 734; 1035; 1184; 1403; 1600; 2780; 2784; 2803; 3114; 3192; 3273; 3282; 3360; 3736; 3752; 4111; 4123; 4201; 4209; 4220; 4295
CjeI	CCANNNNNNGTNNNNNNNNNNNNNNNN!	4	2756; 4196; 4296; 4374
CjeI	!NNNNNNNNNACNNNNNNNTGG	5	2423; 2518; 3710; 4260; 4815
CjeI	ACNNNNNNNTGGNNNNNNNNNNNNNN!	5	2457; 2552; 3744; 4294; 4849
CjeI	!NNNNNNNNCCANNNNNNGT	4	2722; 4162; 4262; 4340
CjePI	CCANNNNNNNNTCNNNNNNNNNNNNNN!	2	4196; 4374
CjePI	!NNNNNNNNGANNNNNNNTGG	2	3710; 4309
CjePI	GANNNNNNNTGGNNNNNNNNNNNNNN!	2	3743; 4342



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
CjePI	!NNNNNNNCCANNNNNNTC	2	4163; 4341
Clai	AT!CGAT	1	2779
CpoI	CG!GWCCG	1	3455
CseI	GACGCNNNNN!	3	140; 3649; 3728
CseI	!NNNNNNNNNGCGTC	3	2272; 4167; 4745
CsiI	A!CCWGGT	1	2528
CspI	CG!GWCCG	1	3455
Csp6I	G!TAC	6	97; 563; 1019; 1452; 1507; 3244
Csp45I	TT!CGAA	1	3621
CspAI	A!CCGGT	1	215
CspCI	CAANNNNNGTGGNNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNCCACNNNNNTTG	0	
CspCI	CCACNNNNNTTGNNNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNNNCAANNNNNGTGG	0	
CstMI	AAGGAGNNNNNNNNNNNNNNNNNN!	3	1009; 2219; 3828
CstMI	!NNNNNNNNNNNNNNNNNNCTCCTT	0	
CviAII	C!ATG	22	119; 227; 311; 506; 551; 824; 854; 1133; 1352; 2366; 2506; 2578; 2669; 2810; 3155; 3341; 3372; 3398; 3754; 4138; 4858; 4909
CviJI	RG!CY	100	10; 111; 151; 160; 165; 173; 273; 284; 289; 315; 342; 386; 427; 460; 560; 611; 644; 664; 716; 728; 749; 764; 787; 793; 865; 965; 979; 1013; 1037; 1071; 1164; 1245; 1480; 1499; 1608; 1718; 1885; 1905; 2047; 2128; 2142; 2156; 2437; 2478; 2550; 2673; 2702; 2708; 2717; 2725; 2748; 2760; 2766; 2847; 2864; 2872; 2899; 2924; 3008; 3017; 3021; 3045; 3083; 3159; 3176; 3195; 3258; 3302; 3312; 3329; 3412; 3439; 3443; 3480; 3503; 3519; 3699; 3726; 3787; 3909; 3948; 4005; 4012; 4019; 4038; 4049; 4300; 4329; 4372; 4383; 4448; 4527; 4552; 4557; 4603; 4693; 4791; 4817; 4835; 4846
CviKI-1	RG!CY	100	10; 111; 151; 160; 165; 173; 273; 284; 289; 315; 342; 386; 427; 460; 560; 611; 644; 664; 716; 728; 749; 764; 787; 793; 865; 965; 979; 1013; 1037; 1071; 1164; 1245; 1480; 1499; 1608; 1718; 1885; 1905; 2047; 2128; 2142; 2156; 2437; 2478; 2550; 2673; 2702; 2708; 2717; 2725; 2748; 2760; 2766; 2847; 2864; 2872; 2899; 2924; 3008; 3017; 3021; 3045; 3083; 3159; 3176; 3195; 3258; 3302; 3312; 3329; 3412; 3439; 3443; 3480; 3503; 3519; 3699; 3726; 3787; 3909; 3948; 4005; 4012; 4019; 4038; 4049; 4300; 4329; 4372; 4383; 4448; 4527; 4552; 4557; 4603; 4693; 4791; 4817; 4835; 4846
CviQI	G!TAC	6	97; 563; 1019; 1452; 1507; 3244
DdeI	C!TNAG	10	285; 456; 474; 1361; 2419; 2721; 3602; 4051; 4174; 4583
DinI	GGC!GCC	1	2940
DpnI	GA!TC	26	195; 211; 354; 502; 540; 732; 1033; 1182; 1401; 1598; 2778; 2782; 2801; 3112; 3190; 3271; 3280; 3358; 3734; 3750; 4109; 4121; 4199; 4207; 4218; 4293
DpnII	!GATC	26	193; 209; 352; 500; 538; 730; 1031; 1180; 1399; 1596; 2776; 2780; 2799; 3110; 3188; 3269; 3278; 3356; 3732; 3748; 4107; 4119; 4197; 4205; 4216; 4291
DraI	TTT!AAA	3	1641; 4083; 4102
DraII	RG!GNCCY	2	1492; 4037
DraIII	CACNN!GTG	1	2055
DraRI	CAAGNACNNNNNNNNNNNNNNNNNN!	2	919; 4419
DraRI	!NNNNNNNNNNNNNNNNNGTNCCTG	0	
DrdI	GACNNN!NNGTC	4	1431; 2010; 2966; 4755
DrdIV	TACGACNNNNNNNNNNNNNNNNNN!	0	
DrdIV	!NNNNNNNNNNNNNNNNNGTCGTA	1	219
DriI	GACNNN!NNGTC	0	
DseDI	GACNNN!NNGTC	4	1431; 2010; 2966; 4755
EaeI	Y!GGCCR	7	313; 662; 1478; 2845; 3019; 3410; 3437
EagI	C!GGCCG	2	1478; 2845
Eam1104I	CTCTTCN!	0	
Eam1104I	!NNNNGAAGAG	3	2406; 3283; 3493
Eam1105I	GACNNN!NNGTC	0	
EarI	CTCTTCN!	0	
EarI	!NNNNGAAGAG	3	2406; 3283; 3493
EciI	GGCGGANNNNNNNNNNN!	4	2439; 3468; 4655; 4801
EciI	!NNNNNNNNNTCCGCC	5	345; 839; 2610; 2631; 2652
Ecl136II	GAG!CTC	1	289

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
EclXI	C!GGCCG	2	1478; 2845
Eco24I	GRGCY!C	4	291; 2130; 3304; 4014
Eco31I	GGTCTCN!	0	
Eco31I	!NNNNNGAGACC	1	3928
Eco32I	GAT!ATC	0	
Eco47I	G!GWCC	4	509; 1492; 3455; 3900
Eco47III	AGC!GCT	0	
Eco52I	C!GGCCG	2	1478; 2845
Eco57I	CTGAAGNNNNNNNNNNNNNNNN!	5	744; 816; 987; 3085; 3517
Eco57I	!NNNNNNNNNNNNNNCTTCAG	1	4315
Eco72I	CAC!GTG	0	
Eco81I	CC!TNAGG	2	2419; 4051
Eco88I	C!YCGRG	1	294
Eco91I	G!GTNACC	0	
Eco105I	TAC!GTA	0	
Eco130I	C!CWWGG	4	2668; 2761; 3371; 3776
Eco147I	AGG!CCT	1	2760
EcoHI	!CCSGG	7	165; 534; 618; 2941; 3101; 3714; 4478
EcoICRI	GAG!CTC	1	289
Eco57MI	CTGRAGNNNNNNNNNNNNNNNN!	8	537; 744; 816; 987; 1035; 3085; 3517; 3779
Eco57MI	!NNNNNNNNNNNNNNCTYCAG	2	3722; 4315
EcoNI	CCTNN!NNNAGG	0	
Eco065I	G!GTNACC	0	
Eco0109I	RG!GNCCY	2	1492; 4037
EcoRI	G!AATTC	2	1059; 1446
EcoRII	!CCWGG	14	634; 759; 871; 946; 1000; 2473; 2528; 2545; 3324; 3903; 4006; 4696; 4709; 4830
EcoRV	GAT!ATC	0	
EcoT14I	C!CWWGG	4	2668; 2761; 3371; 3776
EcoT22I	ATGCA!T	3	2511; 2583; 4914
EcoT38I	GRGCY!C	4	291; 2130; 3304; 4014
Eco53kI	GAG!CTC	1	289
EgeI	GGC!GCC	1	2940
EheI	GGC!GCC	1	2940
ErhI	C!CWWGG	4	2668; 2761; 3371; 3776
EsaBC3I	TC!GA	16	296; 368; 641; 935; 962; 2089; 2780; 3053; 3209; 3233; 3269; 3431; 3622; 3667; 3922; 4760
Esp3I	CGTCTCN!	0	
Esp3I	!NNNNNGAGACG	1	1417
FaeI	CATG!	22	122; 230; 314; 509; 554; 827; 857; 1136; 1355; 2369; 2509; 2581; 2672; 2813; 3158; 3344; 3375; 3401; 3757; 4141; 4861; 4912
Fail	YA!TR	53	83; 120; 228; 276; 307; 312; 507; 552; 825; 855; 1134; 1179; 1239; 1324; 1353; 1441; 1523; 1601; 1611; 1677; 1722; 1927; 2355; 2367; 2498; 2507; 2570; 2579; 2603; 2670; 2694; 2811; 2875; 3156; 3181; 3342; 3373; 3399; 3471; 3687; 3755; 3833; 3885; 4046; 4065; 4067; 4139; 4417; 4606; 4722; 4795; 4859; 4910
FalI	AAGNNNNNCTTNNNNNNNNNNNN!	5	91; 362; 1088; 1552; 3279
FalI	!NNNNNNNNAAGNNNNNCTT	5	59; 330; 1056; 1520; 3247
FaqI	GGGACNNNNNNNNNN!	3	3090; 3622; 3731
FaqI	!NNNNNNNNNNNNNGTCCC	4	2455; 2527; 2591; 3886
FatI	!CATG	22	118; 226; 310; 505; 550; 823; 853; 1132; 1351; 2365; 2505; 2577; 2668; 2809; 3154; 3340; 3371; 3397; 3753; 4137; 4857; 4908
FauI	CCCGCNNNN!	7	816; 924; 2261; 2616; 2637; 3833; 3965
FauI	!NNNNNNGCGGG	6	139; 2192; 3062; 3599; 3737; 3884
FauNDI	CA!TATG	0	
FbaI	T!GATCA	3	1031; 1180; 1399
FbII	GT!MKAC	0	
FmuI	GGNC!C	11	167; 429; 512; 766; 1495; 2049; 3458; 3903; 3949; 4007; 4040
Fnu4HI	GC!NGC	43	112; 138; 141; 144; 171; 183; 377; 384; 435; 438; 532; 596; 750; 831; 1333; 1481; 1716; 2235; 2257; 2271; 2709; 2848; 2900; 2911; 3001; 3006; 3043; 3084; 3171; 3177; 3413; 3509; 3550; 3564; 3678; 4017; 4032; 4243; 4449; 4452; 4517; 4660; 4815
FokI	GGATGNNNNNNNN!	7	585; 1206; 1323; 2806; 3263; 3288; 3742

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
FokI	!NNNNNNNNNNNNNNNNNNNNNNCATCC	3	618; 984; 2612
FriOI	GRGCY!C	4	291; 2130; 3304; 4014
FseI	GGCCGG!CC	0	
FspI	TGC!GCA	1	3041
FspAI	RTGC!GCAY	0	
FspBI	C!TAG	10	115; 1246; 1489; 1594; 1788; 2206; 2762; 3777; 4111; 4364
FspEI	CCNNNNNNNNNNNNNN!	150	24; 58; 102; 137; 179; 196; 210; 226; 329; 356; 372; 404; 425; 441; 455; 477; 498; 525; 542; 605; 632; 648; 678; 695; 716; 734; 752; 766; 782; 807; 821; 863; 885; 929; 959; 1014; 1055; 1085; 1118; 1167; 1226; 1296; 1494; 1508; 1622; 1661; 1675; 1816; 1911; 1935; 1958; 1981; 1999; 2021; 2042; 2061; 2080; 2109; 2130; 2144; 2170; 2258; 2284; 2333; 2374; 2392; 2431; 2447; 2485; 2542; 2557; 2614; 2634; 2648; 2665; 2679; 2716; 2731; 2774; 2857; 2924; 2955; 2975; 2990; 3035; 3049; 3115; 3129; 3148; 3164; 3205; 3225; 3272; 3322; 3338; 3358; 3383; 3403; 3426; 3453; 3471; 3497; 3537; 3563; 3587; 3643; 3657; 3685; 3728; 3749; 3784; 3828; 3916; 3940; 3962; 3982; 3998; 4019; 4033; 4052; 4136; 4156; 4184; 4199; 4233; 4275; 4302; 4317; 4362; 4386; 4400; 4422; 4448; 4468; 4492; 4518; 4566; 4585; 4604; 4630; 4665; 4710; 4740; 4754; 4805; 4819; 4844; 4860; 4881; 4910
FspEI	!NNNNNNNNNNNNNNNNNNNGG	129	93; 131; 152; 189; 230; 262; 297; 316; 354; 403; 492; 520; 555; 577; 604; 630; 667; 694; 727; 746; 769; 847; 879; 909; 933; 954; 972; 999; 1050; 1078; 1101; 1121; 1158; 1176; 1227; 1272; 1293; 1348; 1405; 1462; 1500; 1544; 1610; 1710; 1779; 1809; 1887; 1936; 1958; 1986; 2022; 2067; 2096; 2132; 2151; 2179; 2199; 2262; 2285; 2393; 2425; 2443; 2472; 2515; 2544; 2655; 2684; 2727; 2748; 2776; 2809; 2829; 2854; 2881; 2906; 2928; 2956; 2982; 3003; 3054; 3075; 3093; 3141; 3177; 3233; 3258; 3282; 3311; 3334; 3358; 3384; 3406; 3425; 3450; 3490; 3526; 3591; 3676; 3700; 3729; 3763; 3784; 3804; 3849; 3876; 3895; 3928; 3980; 4011; 4038; 4090; 4188; 4259; 4304; 4365; 4430; 4464; 4490; 4508; 4544; 4614; 4637; 4659; 4683; 4716; 4764; 4799; 4817; 4874
Fsp4HI	GC!NGC	43	112; 138; 141; 144; 171; 183; 377; 384; 435; 438; 532; 596; 750; 831; 1333; 1481; 1716; 2235; 2257; 2271; 2709; 2848; 2900; 2911; 3001; 3006; 3043; 3084; 3171; 3177; 3413; 3509; 3550; 3564; 3678; 4017; 4032; 4243; 4449; 4452; 4517; 4660; 4815
GdiII	C!GGCCR	3	662; 1478; 2845
GdiII	Y!GGCCG	5	313; 1478; 2845; 3410; 3437
GlaI	GC!GC	25	186; 188; 498; 879; 920; 2204; 2212; 2238; 2260; 2269; 2282; 2313; 2932; 2940; 3004; 3041; 3307; 3567; 3743; 3829; 4232; 4341; 4515; 4615; 4682
GluI	GC!NGC	43	112; 138; 141; 144; 171; 183; 377; 384; 435; 438; 532; 596; 750; 831; 1333; 1481; 1716; 2235; 2257; 2271; 2709; 2848; 2900; 2911; 3001; 3006; 3043; 3084; 3171; 3177; 3413; 3509; 3550; 3564; 3678; 4017; 4032; 4243; 4449; 4452; 4517; 4660; 4815
GsaI	CCCAG!C	4	1499; 2486; 2558; 4557
GsaI	GCTGG!G	1	3447
GsuI	CTGGAGNNNNNNNNNNNNNNNNNN!	3	537; 1035; 3779
GsuI	!NNNNNNNNNNNNNNNNNNNCTCCAG	1	3722
HaeI	WGG!CCW	6	342; 2760; 3021; 4383; 4835; 4846
HaeII	RGCG!Y	4	2206; 2214; 2942; 4617
HaeIII	GG!CC	25	165; 315; 342; 427; 664; 764; 793; 1480; 1905; 2047; 2702; 2708; 2717; 2760; 2847; 3021; 3412; 3439; 3948; 4005; 4038; 4383; 4817; 4835; 4846
HaeIV	GAYNNNNNRTCNNNNNNNNNNNNNN!	1	3135
HaeIV	!NNNNNNNNNGAYNNNNNNRTC	1	3101
HaeIV	GAYNNNNNRTCNNNNNNNNNNNNNN!	1	3134
HaeIV	!NNNNNNNGAYNNNNNNRTC	1	3103
HapII	C!CGG	23	167; 216; 535; 592; 619; 682; 742; 2157; 2844; 2921; 2943; 2971; 3102; 3192; 3259; 3440; 3715; 3723; 3815; 4289; 4479; 4505; 4652
HgaI	GACGCNNNNN!	3	140; 3649; 3728
HgaI	!NNNNNNNNNNNGCGTC	3	2272; 4167; 4745
HhaI	GCG!C	25	187; 189; 499; 880; 921; 2205; 2213; 2239; 2261; 2270; 2283; 2314; 2933; 2941; 3005; 3042; 3308; 3568; 3744; 3830; 4233; 4342; 4516; 4616; 4683

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Hin1I	GR!CGYC	4	132; 2939; 3641; 3720
Hin1III	CATG!	22	122; 230; 314; 509; 554; 827; 857; 1136; 1355; 2369; 2509; 2581; 2672; 2813; 3158; 3344; 3375; 3401; 3757; 4141; 4861; 4912
Hin4I	GAYNNNNNVTCNNNNNNNNNNNN!	1	3134
Hin4I	!NNNNNNNGABNNNNNRTC	2	3102; 3132
Hin4I	GABNNNNNRTCNNNNNNNNNNNN!	2	3134; 3164
Hin4I	!NNNNNNNGAYNNNNNVTC	1	3102
Hin6I	G!CGC	25	185; 187; 497; 878; 919; 2203; 2211; 2237; 2259; 2268; 2281; 2312; 2931; 2939; 3003; 3040; 3306; 3566; 3742; 3828; 4231; 4340; 4514; 4614; 4681
HinP1I	G!CGC	25	185; 187; 497; 878; 919; 2203; 2211; 2237; 2259; 2268; 2281; 2312; 2931; 2939; 3003; 3040; 3306; 3566; 3742; 3828; 4231; 4340; 4514; 4614; 4681
HincII	GTY!RAC	2	1436; 1702
HindII	GTY!RAC	2	1436; 1702
HindIII	A!AGCTT	0	
HinfI	G!ANTC	12	1297; 1485; 1982; 2004; 2414; 3424; 3558; 3610; 3668; 3705; 4487; 4883
HpaI	GTT!AAC	1	1702
HpaII	C!CGG	23	167; 216; 535; 592; 619; 682; 742; 2157; 2844; 2921; 2943; 2971; 3102; 3192; 3259; 3440; 3715; 3723; 3815; 4289; 4479; 4505; 4652
HphI	GGTANNNNNNNN!	4	938; 962; 4010; 4126
HphI	!NNNNNNNTCACC	3	608; 2056; 3117
Hpy8I	GTN!NAC	9	616; 659; 953; 1436; 1702; 1986; 2003; 2058; 4545
Hpy99I	CGWCG!	12	241; 369; 426; 657; 903; 3029; 3057; 3351; 3366; 3643; 4028; 4761
Hpy166II	GTN!NAC	9	616; 659; 953; 1436; 1702; 1986; 2003; 2058; 4545
Hpy188I	TCN!GA	14	270; 1150; 1296; 1404; 2113; 2722; 2906; 3250; 3603; 3704; 4183; 4317; 4670; 4748
Hpy188III	TC!NNGA	27	128; 296; 350; 473; 524; 773; 1133; 1352; 2366; 2418; 2731; 2784; 2957; 3273; 3282; 3365; 3421; 3465; 3555; 3588; 3657; 4138; 4212; 4295; 4393; 4491; 4625
HpyAV	CCTCANNNNNN!	4	1082; 3584; 3691; 4370
HpyAV	!NNNNNGAAGG	9	855; 962; 2172; 3067; 3796; 3812; 3995; 4312; 4622
HpyCH4III	ACN!GT	9	1130; 2030; 3319; 3435; 3543; 3866; 4357; 4827; 4898
HpyCH4IV	A!CGT	16	236; 301; 364; 568; 655; 868; 1343; 1348; 1999; 2011; 2054; 2164; 3055; 3242; 4023; 4156
HpyCH4V	TG!CA	23	55; 383; 736; 1172; 1332; 1467; 1551; 1688; 1715; 1783; 2500; 2509; 2572; 2581; 2696; 2772; 2831; 2990; 3165; 3179; 4249; 4545; 4912
HpyF3I	C!TNAG	10	285; 456; 474; 1361; 2419; 2721; 3602; 4051; 4174; 4583
HpyF10VI	GCNNNNN!NNGC	29	140; 157; 179; 270; 595; 682; 742; 755; 799; 1034; 2166; 2196; 2223; 2265; 2506; 2578; 2629; 2708; 2930; 3014; 3037; 3176; 3299; 3382; 3649; 3836; 4040; 4239; 4811
Hsp92I	GR!CGYC	4	132; 2939; 3641; 3720
Hsp92II	CATG!	22	122; 230; 314; 509; 554; 827; 857; 1136; 1355; 2369; 2509; 2581; 2672; 2813; 3158; 3344; 3375; 3401; 3757; 4141; 4861; 4912
HspAI	G!CGC	25	185; 187; 497; 878; 919; 2203; 2211; 2237; 2259; 2268; 2281; 2312; 2931; 2939; 3003; 3040; 3306; 3566; 3742; 3828; 4231; 4340; 4514; 4614; 4681
KasI	G!GCGCC	1	2938
KfII	GG!GWCCC	0	
KpnI	GGTAC!C	0	
Kpn2I	T!CCGGA	0	
KspI	CCGC!GG	0	
Ksp22I	T!GATCA	3	1031; 1180; 1399
KspAI	GTT!AAC	1	1702
Kzo9I	!GATC	26	193; 209; 352; 500; 538; 730; 1031; 1180; 1399; 1596; 2776; 2780; 2799; 3110; 3188; 3269; 3278; 3356; 3732; 3748; 4107; 4119; 4197; 4205; 4216; 4291
LguI	GCTCTCN!	0	
LguI	!NNNNGAAGAGC	2	3283; 3493
LpnI	RGC!GCV	4	2204; 2212; 2940; 4615

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
LpnPI	CCDGNNNNNNNNN!	65	58; 141; 180; 229; 414; 468; 486; 525; 548; 605; 632; 648; 695; 735; 755; 773; 807; 885; 960; 1014; 1509; 1676; 1981; 2170; 2393; 2431; 2447; 2487; 2542; 2559; 2659; 2744; 2857; 2934; 2956; 2979; 3115; 3129; 3148; 3205; 3272; 3322; 3338; 3395; 3453; 3662; 3728; 3752; 3828; 3917; 4020; 4053; 4284; 4302; 4448; 4468; 4492; 4518; 4567; 4665; 4710; 4740; 4819; 4844; 4881
LpnPI	!NNNNNNNNNNNNNCHGG	59	93; 142; 201; 241; 501; 520; 577; 604; 630; 667; 727; 746; 858; 933; 987; 1128; 1158; 1544; 2022; 2142; 2199; 2262; 2460; 2472; 2532; 2544; 2776; 2821; 2864; 2906; 2928; 2956; 3003; 3065; 3087; 3177; 3244; 3267; 3311; 3406; 3425; 3450; 3599; 3700; 3743; 3800; 3890; 3993; 4020; 4038; 4274; 4311; 4464; 4490; 4630; 4648; 4683; 4764; 4817
Lsp1109I	GCAGCNNNNNNNN!	10	388; 607; 842; 1344; 1727; 3012; 3054; 3575; 4028; 4528
Lsp1109I	!NNNNNNNNNNNNNGCTGC	10	98; 124; 421; 736; 2221; 2886; 3070; 3163; 4229; 4435
LweI	GCATCNNNNN!	9	343; 967; 982; 1755; 2518; 2590; 3238; 3302; 3577
LweI	!NNNNNNNNNNNGATGC	6	689; 1184; 2897; 3152; 3368; 4760
MabI	A!CCWGGT	1	2528
MaeI	C!TAG	10	115; 1246; 1489; 1594; 1788; 2206; 2762; 3777; 4111; 4364
MaeII	A!CGT	16	236; 301; 364; 568; 655; 868; 1343; 1348; 1999; 2011; 2054; 2164; 3055; 3242; 4023; 4156
MaeIII	!GTNAC	16	40; 258; 524; 773; 1138; 1344; 1561; 1727; 2228; 2240; 3059; 3365; 4055; 4321; 4437; 4500
MaiI	GA!TC	26	195; 211; 354; 502; 540; 732; 1033; 1182; 1401; 1598; 2778; 2782; 2801; 3112; 3190; 3271; 3280; 3358; 3734; 3750; 4109; 4121; 4199; 4207; 4218; 4293
MaqI	CRTTGACNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN!	1	1241
MaqI	!NNNNNNNNNNNNNNNNNNNNNGTCAAYG	0	
MauBI	CG!CGCGCG	0	
MbiI	CCG!CTC	2	2363; 3552
MbiI	GAG!CGG	2	2199; 3606
MboI	!GATC	26	193; 209; 352; 500; 538; 730; 1031; 1180; 1399; 1596; 2776; 2780; 2799; 3110; 3188; 3269; 3278; 3356; 3732; 3748; 4107; 4119; 4197; 4205; 4216; 4291
MboII	GAAGANNNNNNNN!	10	338; 1056; 1284; 1395; 1455; 2195; 2423; 3300; 3510; 4129
MboII	!NNNNNNNTCTTC	6	833; 878; 3590; 3757; 3957; 4200
McaTI	GCGC!GC	1	188
MfeI	C!AATTG	1	1689
MfiI	R!GATCY	10	193; 209; 352; 3110; 3356; 3748; 4107; 4119; 4205; 4216
MhiI	GDGCH!C	12	291; 631; 760; 1009; 2130; 2885; 2978; 3052; 3242; 3304; 4014; 4547
MisI	TGG!CCA	1	3021
MluI	A!CGCGT	1	1026
MluNI	TGG!CCA	1	3021
MlyI	GAGTCNNNNN!	3	1306; 1991; 2423
MlyI	!NNNNNGACTC	4	1479; 1998; 3604; 4481
Mly113I	GG!CGCC	1	2939
MmeI	TCCRACNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN!	1	2032
MmeI	!NNNNNNNNNNNNNNNNNNNNNGTYGGA	2	4464; 4648
MnlI	CCTCNNNNNNN!	9	780; 792; 1658; 2722; 3540; 3746; 4060; 4430; 4754
MnlI	!NNNNNNNGAGG	20	362; 599; 680; 917; 929; 980; 1129; 1280; 1618; 2083; 2414; 2692; 2735; 2750; 2790; 2854; 2990; 3347; 3777; 4680
Mph1103I	ATGCA!T	3	2511; 2583; 4914
MreI	CG!CCGGCG	0	
MroI	T!CCGGA	0	
MroNI	G!CCGGC	3	2156; 3439; 3722
MroXI	GAANN!NNTTC	1	801
MscI	TGG!CCA	1	3021
MseI	T!TAA	14	1640; 1701; 1822; 1843; 1854; 1866; 1877; 1894; 1992; 2263; 4082; 4096; 4101; 4153
MslI	CAYNN!NNRTG	4	621; 771; 948; 3376
MspI	C!CGG	23	167; 216; 535; 592; 619; 682; 742; 2157; 2844; 2921; 2943; 2971; 3102; 3192; 3259; 3440; 3715; 3723; 3815; 4289; 4479; 4505; 4652
Msp20I	TGG!CCA	1	3021
MspA1I	CMG!CKG	6	137; 1037; 2437; 3045; 4274; 4519
MspCI	C!TTAAG	1	1821

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
MspJI	CNNRNNNNNNNNNN!	254	24; 47; 71; 101; 120; 140; 159; 173; 188; 202; 228; 247; 268; 281; 297; 323; 336; 350; 372; 392; 413; 426; 441; 454; 467; 485; 498; 516; 536; 558; 581; 604; 617; 631; 647; 668; 689; 704; 718; 734; 754; 767; 783; 806; 820; 834; 857; 870; 884; 905; 923; 947; 960; 974; 995; 1013; 1026; 1039; 1054; 1069; 1091; 1121; 1134; 1155; 1171; 1185; 1210; 1236; 1258; 1276; 1296; 1319; 1348; 1364; 1386; 1415; 1439; 1463; 1480; 1494; 1507; 1522; 1549; 1567; 1586; 1606; 1622; 1646; 1663; 1676; 1717; 1731; 1744; 1762; 1800; 1815; 1833; 1874; 1898; 1918; 1936; 1957; 1980; 2012; 2027; 2049; 2067; 2080; 2101; 2118; 2131; 2144; 2160; 2173; 2203; 2218; 2243; 2261; 2274; 2289; 2313; 2327; 2351; 2376; 2392; 2430; 2446; 2485; 2499; 2513; 2541; 2557; 2571; 2585; 2614; 2627; 2648; 2657; 2679; 2709; 2725; 2743; 2773; 2796; 2820; 2844; 2863; 2891; 2917; 2933; 2946; 2969; 2983; 3003; 3016; 3030; 3049; 3063; 3076; 3092; 3107; 3120; 3136; 3151; 3167; 3192; 3211; 3227; 3240; 3253; 3271; 3285; 3299; 3315; 3337; 3353; 3372; 3394; 3410; 3433; 3452; 3466; 3482; 3496; 3516; 3532; 3545; 3567; 3600; 3614; 3634; 3647; 3661; 3715; 3728; 3751; 3764; 3783; 3800; 3827; 3863; 3896; 3915; 3940; 3961; 3988; 4001; 4018; 4032; 4047; 4063; 4123; 4148; 4164; 4186; 4199; 4213; 4244; 4258; 4283; 4301; 4316; 4329; 4348; 4361; 4376; 4405; 4424; 4442; 4467; 4482; 4501; 4517; 4536; 4554; 4570; 4584; 4603; 4630; 4653; 4675; 4694; 4709; 4722; 4739; 4759; 4786; 4799; 4818; 4843; 4866; 4880; 4893; 4910
MspJI	!NNNNNNNNNNNNYNG	205	16; 35; 53; 80; 101; 131; 148; 170; 190; 213; 237; 254; 272; 297; 324; 341; 366; 387; 404; 427; 450; 477; 498; 521; 543; 578; 605; 622; 654; 672; 694; 719; 739; 757; 775; 794; 820; 840; 858; 879; 897; 919; 948; 969; 987; 1011; 1050; 1069; 1108; 1129; 1159; 1210; 1232; 1268; 1288; 1313; 1333; 1388; 1417; 1435; 1468; 1490; 1510; 1531; 1555; 1576; 1605; 1649; 1691; 1774; 1809; 1836; 1859; 1888; 1932; 1954; 1986; 2022; 2039; 2060; 2097; 2117; 2134; 2151; 2186; 2204; 2222; 2239; 2263; 2285; 2312; 2340; 2366; 2404; 2425; 2442; 2460; 2483; 2504; 2532; 2555; 2576; 2594; 2615; 2632; 2655; 2679; 2699; 2717; 2739; 2770; 2792; 2818; 2837; 2854; 2882; 2901; 2920; 2938; 2956; 2977; 2999; 3023; 3056; 3076; 3094; 3115; 3141; 3168; 3185; 3202; 3219; 3245; 3267; 3289; 3307; 3327; 3346; 3368; 3406; 3426; 3450; 3470; 3490; 3517; 3541; 3574; 3593; 3621; 3643; 3672; 3700; 3725; 3744; 3763; 3784; 3801; 3818; 3849; 3876; 3896; 3919; 3939; 3976; 3993; 4012; 4038; 4058; 4097; 4124; 4143; 4161; 4198; 4216; 4257; 4275; 4301; 4318; 4350; 4379; 4407; 4428; 4451; 4470; 4491; 4509; 4526; 4544; 4570; 4591; 4611; 4631; 4649; 4670; 4696; 4713; 4732; 4751; 4780; 4799; 4817; 4836; 4854; 4872; 4895
MspR9I	CC!NGG	21	167; 536; 620; 636; 761; 873; 948; 1002; 2475; 2530; 2547; 2943; 3103; 3326; 3716; 3905; 4008; 4480; 4698; 4711; 4832
MssI	GTTT!AAC	0	
MunI	C!AATTG	1	1689
MvaI	CC!WGG	14	636; 761; 873; 948; 1002; 2475; 2530; 2547; 3326; 3905; 4008; 4698; 4711; 4832
Mva1269I	GAATGCN!	1	1690
Mva1269I	G!CATTC	2	1290; 1783
MvnI	CG!CG	19	185; 187; 499; 919; 1028; 1483; 1863; 2239; 2259; 2283; 2314; 3005; 3306; 3744; 3828; 3891; 3960; 4233; 4814
MvrI	CGAT!CG	0	
MwoI	GCNNNNN!NNGC	29	140; 157; 179; 270; 595; 682; 742; 755; 799; 1034; 2166; 2196; 2223; 2265; 2506; 2578; 2629; 2708; 2930; 3014; 3037; 3176; 3299; 3382; 3649; 3836; 4040; 4239; 4811
NaeI	GCC!GGC	3	2158; 3441; 3724
NarI	GG!CGCC	1	2939
NciI	CC!SGG	7	167; 536; 620; 2943; 3103; 3716; 4480
NcoI	C!CATGG	2	2668; 3371
NdeI	CA!TATG	0	
NdeII	!GATC	26	193; 209; 352; 500; 538; 730; 1031; 1180; 1399; 1596; 2776; 2780; 2799; 3110; 3188; 3269; 3278; 3356; 3732; 3748; 4107; 4119; 4197; 4205; 4216; 4291
NgoAVIII	GACNNNNNTGANNNNNNNNNNNN!	0	
NgoAVIII	!NNNNNNNNNNNTCANNNNNGTC	0	
NgoAVIII	TCANNNNNGTCNNNNNNNNNNNNNN!	0	
NgoAVIII	!NNNNNNNNNNNGACNNNNNTGA	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
NgoMIV	G!CCGGC	3	2156; 3439; 3722
NheI	G!CTAGC	1	114
NlaIII	CATG!	22	122; 230; 314; 509; 554; 827; 857; 1136; 1355; 2369; 2509; 2581; 2672; 2813; 3158; 3344; 3375; 3401; 3757; 4141; 4861; 4912
NlaIV	GGN!NCC	21	174; 211; 428; 590; 628; 1103; 1211; 1494; 2094; 2115; 2127; 2318; 2479; 2551; 2940; 2975; 3823; 3902; 3947; 4790; 4829
NlaCI	CATCACNNNNNNNNNNNNNNNNNN!	5	256; 1130; 1771; 2086; 3678
NlaCI	!NNNNNNNNNNNNNNNNNGTGATG	1	4750
Nli3877I	CYCGR!G	1	298
NmeAIII	GCCGAGNNNNNNNNNNNNNNNNNN!	3	947; 2728; 3164
NmeAIII	!NNNNNNNNNNNNNNNNNNCTCGGC	4	141; 526; 763; 2693
NmeDI	RCCGGYNNNNNNNN!	7	227; 603; 753; 2168; 3270; 3451; 3734
NmeDI	!NNNNNNNNNNNNRCCGGY	7	202; 578; 728; 2143; 3245; 3426; 3709
NmuCI	!GTSAC	10	40; 258; 524; 773; 1138; 1344; 1561; 2228; 3059; 3365
NotI	GC!GGCCGC	1	1478
NruI	TCG!CGA	0	
NsbI	TGC!GCA	1	3041
NsiI	ATGCA!T	3	2511; 2583; 4914
NspI	RCATG!Y	5	122; 2509; 2581; 3344; 4861
NspV	TT!CGAA	1	3621
OliI	CACNN!NNGTG	3	621; 771; 948
PabI	GTA!C	6	99; 565; 1021; 1454; 1509; 3246
PacI	TTAAT!TAA	0	
PaeI	GCATG!C	3	2509; 2581; 3344
PaeR7I	C!TCGAG	1	294
PagI	T!CATGA	4	1132; 1351; 2365; 4137
PalAI	GG!CGCGCC	0	
PasI	CC!CWGGG	2	3904; 4007
PauI	G!CGCGC	1	185
PceI	AGG!CCT	1	2760
PciI	A!CATGT	1	4857
PciSI	GCTCTTCN!	0	
PciSI	!NNNNGAAGAGC	2	3283; 3493
PcsI	WCGNNNN!NNNCGW	8	496; 553; 3233; 3310; 3553; 3627; 4020; 4538
PctI	GAATGCN!	1	1690
PctI	G!CATTC	2	1290; 1783
PdiI	GCC!GGC	3	2158; 3441; 3724
PdmI	GAANN!NNTTC	1	801
PfeI	G!AWTC	5	3424; 3558; 3668; 3705; 4883
Pfi23II	C!GTACG	0	
PfifI	GACN!NNGTC	1	3057
PfIMI	CCANNNN!NTGG	1	203
PfoI	T!CCNGGA	2	871; 3714
PhoI	GG!CC	25	165; 315; 342; 427; 664; 764; 793; 1480; 1905; 2047; 2702; 2708; 2717; 2760; 2847; 3021; 3412; 3439; 3948; 4005; 4038; 4383; 4817; 4835; 4846
PinAI	A!CCGGT	1	215
PlaDI	CATCAGNNNNNNNNNNNNNNNNNN!	1	3320
PlaDI	!NNNNNNNNNNNNNNNNNNCTGATG	3	1178; 2885; 3140
PleI	GAGTCNNNN!	3	1305; 1990; 2422
PleI	!NNNNGACTC	4	1479; 1998; 3604; 4481
Ple19I	CGAT!CG	0	
PmaCI	CAC!GTG	0	
PmeI	GTTT!AAAC	0	
PmlI	CAC!GTG	0	
PpiI	GAACNNNNNCTCNNNNNNNNNNNN!	1	2021
PpiI	!NNNNNNNNGAGNNNNNGTTC	3	597; 915; 4151
PpiI	GAGNNNNNGTTCNNNNNNNNNNNN!	3	629; 947; 4183
PpiI	!NNNNNNNGAACNNNNNCTC	1	1989
PpsI	GAGTCNNNN!	3	1305; 1990; 2422
PpsI	!NNNNGACTC	4	1479; 1998; 3604; 4481
Ppu10I	A!TGCAT	3	2507; 2579; 4910
Ppu21I	YAC!GTR	2	2055; 3243
PpuMI	RG!GWCCY	1	1492

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
PscI	A!CATGT	1	4857
PshAI	GACNN!NNGTC	0	
PshBI	AT!TAAT	0	
PsiI	TTA!TAA	4	83; 1523; 1722; 1927
Psp03I	GGWC!C	4	512; 1495; 3458; 3903
Psp5II	RG!GWCCY	1	1492
Psp6I	!CCWGG	14	634; 759; 871; 946; 1000; 2473; 2528; 2545; 3324; 3903; 4006; 4696; 4709; 4830
Psp1406I	AA!CGTT	0	
Psp124BI	GAGCT!C	1	291
PspCI	CAC!GTG	0	
PspEI	G!GTNACC	0	
PspGI	!CCWGG	14	634; 759; 871; 946; 1000; 2473; 2528; 2545; 3324; 3903; 4006; 4696; 4709; 4830
PspLI	C!GTACG	0	
PspN4I	GGN!NCC	21	174; 211; 428; 590; 628; 1103; 1211; 1494; 2094; 2115; 2127; 2318; 2479; 2551; 2940; 2975; 3823; 3902; 3947; 4790; 4829
PspOMI	G!GGCCC	0	
PspOMII	CGCCARNNNNNNNNNNNNNNNNNNN!	2	2669; 3668
PspOMII	!NNNNNNNNNNNNNNNNNYTGGGCG	1	3071
PspPI	G!GNCC	11	164; 426; 509; 763; 1492; 2046; 3455; 3900; 3946; 4004; 4037
PspPPI	RG!GWCCY	1	1492
PspPRI	CCYAGNNNNNNNNNNNNNNNN!	3	2492; 2564; 4070
PspPRI	!NNNNNNNNNNNNNCTGRGG	3	988; 2405; 3600
PspXI	VC!TCGAGB	0	
PsrI	GAACNNNNNTACNNNNNNNNNN!	0	
PsrI	!NNNNNNNGTANNNNNNGTTC	0	
PsrI	GTANNNNNGTTCNNNNNNNNNN!	0	
PsrI	!NNNNNNNGAACNNNNNTAC	0	
PssI	RGGNC!CY	2	1495; 4040
PstI	CTGCA!G	0	
PstNI	CAGNN!CTG	3	1164; 4040; 4448
PsuI	R!GATCY	10	193; 209; 352; 3110; 3356; 3748; 4107; 4119; 4205; 4216
PsyI	GACN!NNGTC	1	3057
PteI	G!CGCGC	1	185
PvuI	CGAT!CG	0	
PvuII	CAG!CTG	3	1037; 2437; 3045
RcaI	T!CATGA	4	1132; 1351; 2365; 4137
RceI	CATCGACNNNNNNNNNNNNNNNN!	1	3454
RceI	!NNNNNNNNNNNNNNNNNGTCGATG	0	
RgaI	GCGAT!CGC	0	
RigI	GGCCGG!CC	0	
RleAI	CCCACANNNNNNNNNNNN!	1	1668
RleAI	!NNNNNNNNNTGTGGG	0	
RpaBI	CCCGCAGNNNNNNNNNNNNNNNN!	0	
RpaBI	!NNNNNNNNNNNNNNNNNCTGCGGG	1	125
RpaB5I	CGRGGACNNNNNNNNNNNNNNNN!	1	394
RpaB5I	!NNNNNNNNNNNNNNNNNGTCCYCG	0	
RruI	TCG!CGA	0	
RsaI	GT!AC	6	98; 564; 1020; 1453; 1508; 3245
RsaNI	G!TAC	6	97; 563; 1019; 1452; 1507; 3244
RseI	CAYN!NNRTG	4	621; 771; 948; 3376
RsrII	CG!GWCCG	1	3455
Rsr2I	CG!GWCCG	1	3455
SacI	GAGCT!C	1	291
SacII	CCG!GG	0	
SalI	G!TCGAC	0	
SapI	GCTCTCN!	0	
SapI	!NNNNGAAGAGC	2	3283; 3493
SaqAI	T!TAA	14	1640; 1701; 1822; 1843; 1854; 1866; 1877; 1894; 1992; 2263; 4082; 4096; 4101; 4153
SatI	GC!NGC	43	112; 138; 141; 144; 171; 183; 377; 384; 435; 438; 532; 596; 750; 831; 1333; 1481; 1716; 2235; 2257; 2271; 2709; 2848; 2900; 2911; 3001; 3006; 3043; 3084; 3171; 3177; 3413; 3509; 3550; 3564; 3678; 4017; 4032; 4243; 4449; 4452; 4517; 4660; 4815



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Sau96I	G!GNCC	11	164; 426; 509; 763; 1492; 2046; 3455; 3900; 3946; 4004; 4037
Sau3AI	!GATC	26	193; 209; 352; 500; 538; 730; 1031; 1180; 1399; 1596; 2776; 2780; 2799; 3110; 3188; 3269; 3278; 3356; 3732; 3748; 4107; 4119; 4197; 4205; 4216; 4291
SbfI	CCTGCA!GG	0	
ScaI	AGT!ACT	0	
SchI	GAGTCNNNNN!	3	1306; 1991; 2423
SchI	!NNNNNGACTC	4	1479; 1998; 3604; 4481
SciI	CTC!GAG	1	296
ScrFI	CC!NGG	21	167; 536; 620; 636; 761; 873; 948; 1002; 2475; 2530; 2547; 2943; 3103; 3326; 3716; 3905; 4008; 4480; 4698; 4711; 4832
SdaI	CCTGCA!GG	0	
SdeAI	CAGRAGNNNNNNNNNNNNNNNNNNNNNN!	7	350; 899; 1185; 2517; 2589; 2758; 4700
SdeAI	!NNNNNNNNNNNNNNNNNNNNCTYCTG	2	3094; 3579
SdeOSI	GACNNNNRTGANNNNNNNNNNNN!	0	
SdeOSI	!NNNNNNNNNNNTCAYNNNNNGTC	0	
SdeOSI	TCAYNNNNNGTCNNNNNNNNNNNN!	0	
SdeOSI	!NNNNNNNNNNNGACNNNNRTGA	0	
SduI	GDGCH!C	12	291; 631; 760; 1009; 2130; 2885; 2978; 3052; 3242; 3304; 4014; 4547
SelI	!CGCG	19	183; 185; 497; 917; 1026; 1481; 1861; 2237; 2257; 2281; 2312; 3003; 3304; 3742; 3826; 3889; 3958; 4231; 4812
SetI	ASST!	71	47; 239; 260; 275; 281; 291; 304; 367; 388; 457; 462; 562; 571; 613; 646; 658; 708; 718; 730; 751; 871; 928; 967; 1015; 1039; 1140; 1166; 1346; 1351; 1501; 1563; 1629; 1650; 1659; 1671; 1720; 1887; 2002; 2014; 2057; 2094; 2144; 2167; 2291; 2439; 2534; 2727; 2840; 2968; 3047; 3058; 3130; 3201; 3245; 3505; 3651; 3695; 4026; 4057; 4116; 4159; 4302; 4323; 4422; 4559; 4574; 4593; 4605; 4649; 4695; 4746
SexAI	A!CCWGGT	1	2528
SfaAI	GCGAT!CGC	0	
SfaNI	GCATCNNNNN!	9	343; 967; 982; 1755; 2518; 2590; 3238; 3302; 3577
SfaNI	!NNNNNNNNNGATGC	6	689; 1184; 2897; 3152; 3368; 4760
SfcI	C!TRYAG	4	274; 2274; 4401; 4592
SfiI	GGCCNNNN!NGGCC	1	2714
SfoI	GGC!GCC	1	2940
Sfr274I	C!TCGAG	1	294
Sfr303I	CCGC!GG	0	
SfuI	TT!CGAA	1	3621
SgeI	CNNGNNNNNNNN!	197	6; 57; 120; 140; 159; 173; 189; 203; 228; 247; 268; 306; 323; 350; 380; 399; 413; 441; 467; 485; 503; 518; 536; 558; 581; 604; 617; 631; 647; 680; 694; 725; 754; 767; 783; 806; 820; 836; 857; 870; 884; 905; 923; 947; 960; 974; 995; 1013; 1026; 1039; 1076; 1134; 1155; 1185; 1236; 1258; 1296; 1319; 1359; 1443; 1494; 1508; 1571; 1606; 1646; 1675; 1717; 1800; 1874; 1958; 1980; 2012; 2049; 2067; 2086; 2101; 2143; 2160; 2177; 2212; 2226; 2243; 2265; 2289; 2313; 2378; 2392; 2430; 2446; 2486; 2499; 2518; 2541; 2558; 2571; 2590; 2620; 2641; 2658; 2681; 2716; 2743; 2774; 2796; 2822; 2844; 2863; 2891; 2927; 2946; 2969; 2983; 3003; 3016; 3030; 3049; 3063; 3082; 3114; 3128; 3141; 3167; 3198; 3211; 3228; 3245; 3259; 3276; 3294; 3309; 3337; 3353; 3372; 3394; 3410; 3433; 3452; 3477; 3496; 3516; 3543; 3567; 3600; 3619; 3647; 3661; 3727; 3751; 3766; 3789; 3810; 3827; 3875; 3902; 3916; 3945; 3969; 4002; 4019; 4039; 4052; 4065; 4123; 4150; 4169; 4199; 4224; 4244; 4258; 4283; 4301; 4338; 4376; 4405; 4433; 4447; 4467; 4482; 4503; 4517; 4536; 4554; 4570; 4610; 4630; 4657; 4675; 4696; 4709; 4722; 4739; 4763; 4786; 4818; 4843; 4870; 4892

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SgeI	!NNNNNNNNNNNNNCNNG	172	31; 94; 114; 133; 152; 170; 202; 221; 242; 280; 297; 324; 354; 373; 415; 441; 459; 477; 498; 521; 543; 578; 605; 622; 654; 672; 699; 728; 746; 769; 794; 820; 840; 858; 879; 897; 921; 948; 969; 987; 1011; 1050; 1108; 1129; 1159; 1210; 1232; 1270; 1293; 1333; 1417; 1468; 1490; 1545; 1580; 1620; 1649; 1691; 1774; 1848; 1932; 1954; 1986; 2023; 2041; 2060; 2117; 2134; 2151; 2186; 2204; 2224; 2244; 2263; 2287; 2352; 2404; 2460; 2492; 2515; 2532; 2564; 2594; 2615; 2632; 2655; 2690; 2717; 2748; 2770; 2796; 2818; 2837; 2865; 2901; 2920; 2943; 2964; 2982; 2999; 3023; 3056; 3088; 3115; 3141; 3172; 3202; 3219; 3245; 3268; 3289; 3311; 3331; 3351; 3368; 3407; 3426; 3451; 3470; 3490; 3517; 3541; 3574; 3593; 3621; 3643; 3701; 3725; 3744; 3763; 3784; 3801; 3849; 3876; 3896; 3919; 3943; 3976; 3993; 4013; 4039; 4097; 4124; 4143; 4173; 4198; 4218; 4257; 4275; 4312; 4350; 4379; 4407; 4428; 4456; 4477; 4510; 4528; 4584; 4604; 4631; 4649; 4670; 4696; 4713; 4737; 4760; 4792; 4817; 4844; 4866; 4895
Sgfl	GCGAT!CGC	0	
SgrAI	CR!CCGGYG	0	
SgrBI	CCGC!GG	0	
SgrDI	CG!TCGACG	0	
SgsI	GG!CGCGCC	0	
SimI	GG!GTC	4	1146; 2086; 3873; 4666
SimI	!GACCC	7	482; 718; 913; 1492; 3367; 3935; 4183
SinI	G!GWCC	4	509; 1492; 3455; 3900
SlaI	C!TCGAG	1	294
SmaI	CCC!GGG	0	
SmiI	ATTT!AAAT	0	
SmiMI	CAYNN!NNRTG	4	621; 771; 948; 3376
SmlI	C!TYRAG	6	294; 1821; 3330; 4212; 4489; 4751
SmoI	C!TYRAG	6	294; 1821; 3330; 4212; 4489; 4751
SmuI	CCCGCNNNN!	7	816; 924; 2261; 2616; 2637; 3833; 3965
SmuI	!NNNNNNGCGGG	6	139; 2192; 3062; 3599; 3737; 3884
SnaBI	TAC!GTA	0	
SpeI	A!CTAGT	0	
SphI	GCATG!C	3	2509; 2581; 3344
SrfI	GCCC!GGGC	0	
Sse9I	!AATT	15	60; 1059; 1167; 1227; 1446; 1542; 1689; 1753; 1831; 1857; 1868; 2515; 2587; 2679; 4097
Sse8387I	CCTGCA!GG	0	
Sse8647I	AG!GWCCT	0	
SseBI	AGG!CCT	1	2760
SsiI	C!CGC	34	135; 183; 356; 529; 532; 809; 850; 917; 956; 1481; 2254; 2257; 2271; 2361; 2609; 2621; 2630; 2642; 2652; 2663; 2709; 2848; 2911; 3413; 3458; 3524; 3550; 3675; 3678; 3826; 3958; 4265; 4409; 4905
SsiI	G!CGG	25	146; 170; 577; 583; 1477; 2199; 2226; 2314; 2424; 3005; 3069; 3170; 3173; 3453; 3508; 3606; 3744; 3891; 4031; 4274; 4519; 4640; 4659; 4786; 4814
SspI	AAT!ATT	2	1847; 2400
SspDI	G!GCGCC	1	2938
SspD5I	GGTGANNNNNNNN!	4	938; 962; 4010; 4126
SspD5I	!NNNNNNNNNTCACC	3	607; 2055; 3116
SstI	GAGCT!C	1	291
SstII	CCGC!GG	0	
SstE37I	CGAAGACNNNNNNNNNNNNNNNNNNNN!	0	
SstE37I	!NNNNNNNNNNNNNNNNNNNGTCTTCG	0	
Sth132I	CCCGNNNN!	21	173; 436; 448; 760; 815; 823; 865; 923; 1231; 2138; 2260; 2615; 2636; 2949; 3352; 3491; 3562; 3832; 3964; 4194; 4632
Sth132I	!NNNNNNNNNCGGG	18	138; 527; 611; 2139; 2191; 2292; 3019; 3061; 3094; 3598; 3707; 3736; 3883; 3987; 4018; 4471; 4515; 4723
Sth302II	CC!GG	23	168; 217; 536; 593; 620; 683; 743; 2158; 2845; 2922; 2944; 2972; 3103; 3193; 3260; 3441; 3716; 3724; 3816; 4290; 4480; 4506; 4653
StrI	C!TCGAG	1	294
StsI	GGATGNNNNNNNNNN!	7	586; 1207; 1324; 2807; 3264; 3289; 3743
StsI	!NNNNNNNNNNNNNNNCATCC	3	617; 983; 2611
StuI	AGG!CCT	1	2760

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
StyI	C!CWWGG	4	2668; 2761; 3371; 3776
StyD4I	!CCNGG	21	165; 534; 618; 634; 759; 871; 946; 1000; 2473; 2528; 2545; 2941; 3101; 3324; 3714; 3903; 4006; 4478; 4696; 4709; 4830
SwaI	ATTT!AAAT	0	
TaaI	ACN!GT	9	1130; 2030; 3319; 3435; 3543; 3866; 4357; 4827; 4898
TaiI	ACGT!	16	239; 304; 367; 571; 658; 871; 1346; 1351; 2002; 2014; 2057; 2167; 3058; 3245; 4026; 4159
TaqI	T!CGA	16	295; 367; 640; 934; 961; 2088; 2779; 3052; 3208; 3232; 3268; 3430; 3621; 3666; 3921; 4759
TaqII	GACCGANNNNNNNNNNN!	4	1056; 1959; 2976; 3644
TaqII	!NNNNNNNNNTCGGTC	1	3888
TaqII	CACCCANNNNNNNNNNN!	0	
TaqII	!NNNNNNNNNTGGGTG	2	2843; 3435
TasI	!AATT	15	60; 1059; 1167; 1227; 1446; 1542; 1689; 1753; 1831; 1857; 1868; 2515; 2587; 2679; 4097
TatI	W!GTACW	4	96; 562; 1018; 1506
TauI	GCSG!C	20	137; 173; 185; 534; 1483; 2259; 2273; 2711; 2850; 2913; 3008; 3173; 3176; 3415; 3511; 3552; 3680; 4034; 4662; 4817
TfiI	G!AWTC	5	3424; 3558; 3668; 3705; 4883
TliI	C!TCGAG	1	294
TruII	T!TAA	14	1640; 1701; 1822; 1843; 1854; 1866; 1877; 1894; 1992; 2263; 4082; 4096; 4101; 4153
Tru9I	T!TAA	14	1640; 1701; 1822; 1843; 1854; 1866; 1877; 1894; 1992; 2263; 4082; 4096; 4101; 4153
TscAI	CASTGNN!	8	184; 1147; 1334; 1785; 3068; 4178; 4449; 4462
TseI	G!CWGC	25	111; 137; 140; 143; 376; 383; 434; 437; 595; 749; 830; 1332; 1715; 2234; 2899; 3000; 3042; 3083; 3176; 3563; 4016; 4242; 4448; 4451; 4516
TsoI	TARCCANNNNNNNNNNN!	2	1911; 2258
TsoI	!NNNNNNNNNTGGYTA	4	1233; 1309; 1716; 3468
Tsp45I	!GTSAC	10	40; 258; 524; 773; 1138; 1344; 1561; 2228; 3059; 3365
Tsp509I	!AATT	15	60; 1059; 1167; 1227; 1446; 1542; 1689; 1753; 1831; 1857; 1868; 2515; 2587; 2679; 4097
TspDTI	ATGAANNNNNNNNNNN!	8	840; 1201; 1269; 1396; 1456; 1697; 2998; 3702
TspDTI	!NNNNNNNNNTTCAT	3	3416; 3872; 4079
TspEI	!AATT	15	60; 1059; 1167; 1227; 1446; 1542; 1689; 1753; 1831; 1857; 1868; 2515; 2587; 2679; 4097
TspGWI	ACGGANNNNNNNNNNN!	2	1441; 3814
TspGWI	!NNNNNNNNNTCCGT	3	113; 458; 1272
TspMI	C!CCGGG	0	
TspRI	CASTGNN!	8	184; 1147; 1334; 1785; 3068; 4178; 4449; 4462
TstI	CACNNNNNTCCNNNNNNNNNN!	0	
TstI	!NNNNNNNGGANNNNNNGTG	0	
TstI	GGANNNNNNGTGNNNNNNNNNN!	0	
TstI	!NNNNNNNCCACNNNNNTCC	0	
Tth111I	GACN!NNGTC	1	3057
Tth111II	CAARCANNNNNNNNNNN!	2	336; 4266
Tth111II	!NNNNNNNNNTGYTTG	3	3374; 4234; 4273
UnbI	!GGNCC	11	163; 425; 508; 762; 1491; 2045; 3454; 3899; 3945; 4003; 4036
Van9II	CCANNNN!NTGG	1	203
Vha464I	C!TTAAG	1	1821
VneI	G!TGCAC	1	4543
VpaK11AI	!GGWCC	4	508; 1491; 3454; 3899
VpaK11BI	G!GWCC	4	509; 1492; 3455; 3900
VspI	AT!TAAT	0	
XagI	CCTNN!NNNAGG	0	
XapI	R!AATTY	6	1059; 1227; 1446; 1753; 1857; 1868
XbaI	T!CTAGA	0	
XceI	RCATG!Y	5	122; 2509; 2581; 3344; 4861
XcmI	CCANNNNN!NNNNTGG	0	
XhoI	C!TCGAG	1	294
XhoII	R!GATCY	10	193; 209; 352; 3110; 3356; 3748; 4107; 4119; 4205; 4216
XmaI	C!CCGGG	0	
XmaJI	C!CTAGG	2	2761; 3776
XmiI	GT!MKAC	0	
XmnI	GAANN!NNTTC	1	801

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
XspI	C!TAG	10	115; 1246; 1489; 1594; 1788; 2206; 2762; 3777; 4111; 4364
ZraI	GAC!GTC	0	
ZrmI	AGT!ACT	0	
Zsp2I	ATGCA!T	3	2511; 2583; 4914