

## Gateway® Case12-cyto 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; 1497; 1696; 1901
AarI	CACCTGCNNNN!	0	
AarI	!NNNNNNNNGCAGGTG	0	
AasI	GACNNNN!NNGTC	4	1405; 1984; 2940; 4729
AatI	AGG!CCT	1	2734
AatII	GACGT!C	0	
AbsI	CC!TCGAGG	0	
AccI	GT!MKAC	1	163
AccII	CG!CG	18	174; 473; 893; 1002; 1457; 1837; 2213; 2233; 2257; 2288; 2979; 3280; 3718; 3802; 3865; 3934; 4207; 4788
AccIII	T!CCGGA	0	
Acc16I	TGC!GCA	1	3015
Acc36I	ACCTGCNNNN!	2	3181; 3631
Acc36I	!NNNNNNNNGCAGGT	1	2800
Acc65I	G!GTACC	1	168
AccB1I	G!GYRCC	8	168; 562; 600; 1075; 1183; 2066; 2912; 2947
AccB7I	CCANNNN!NTGG	0	
AccBSI	CCG!CTC	2	2337; 3526
AccBSI	GAG!CGG	2	2173; 3580
AceIII	CAGTCNNNNNNN!	2	370; 1869
AceIII	!NNNNNNNNNNGAGCTG	4	520; 571; 604; 925
AciI	C!CGC	33	172; 330; 503; 506; 783; 824; 891; 930; 1455; 2228; 2231; 2245; 2335; 2583; 2595; 2604; 2616; 2626; 2637; 2683; 2822; 2885; 3387; 3432; 3498; 3524; 3649; 3652; 3800; 3932; 4239; 4383; 4879
AciI	G!CGG	24	174; 551; 557; 1451; 2173; 2200; 2288; 2398; 2979; 3043; 3144; 3147; 3427; 3482; 3580; 3718; 3865; 4005; 4248; 4493; 4614; 4633; 4760; 4788
AclI	AA!CGTT	0	
AclWI	GGATCNNNN!	9	191; 520; 2781; 3092; 3338; 3730; 4089; 4187; 4273
AclWI	!NNNNNGATCC	6	178; 321; 3157; 3701; 4088; 4185
AcoI	Y!GGCCR	7	287; 636; 1452; 2819; 2993; 3384; 3411
AcsI	R!AATY	7	152; 1033; 1201; 1420; 1727; 1831; 1842
AcuI	CTGAAGNNNNNNNNNNNNNNN!	5	718; 790; 961; 3059; 3491
AcuI	!NNNNNNNNNNNNNNCTTCAG	1	4289
AcvI	CAC!GTG	0	
AcyI	GR!CGYC	3	2913; 3615; 3694
AdeI	CACNNN!GTG	1	2029
AfaI	GT!AC	7	98; 170; 538; 994; 1427; 1482; 3219
AfeI	AGC!GCT	1	119
AfiI	CCNNNNN!NNGG	18	509; 734; 897; 1925; 2251; 2643; 2894; 3438; 3719; 3751; 3883; 3918; 3968; 4000; 4353; 4632; 4798; 4816
AflII	C!TTAAG	1	1795
AflIII	A!CRYGT	2	1000; 4831
AgeI	A!CCGGT	1	189
AgsI	TTS!AA	10	324; 819; 867; 957; 1038; 2324; 2368; 2378; 2791; 4367
AhdI	GACNNN!NNGTC	0	
AhlI	A!CTAGT	0	
AjiI	CAC!GTC	2	211; 1323
AjiI	GAC!GTG	0	
AjnI	!CCWGG	14	608; 733; 845; 920; 974; 2447; 2502; 2519; 3298; 3877; 3980; 4670; 4683; 4804
AjuI	GAANNNNNNNTTGGNNNNNNNNNNN!	0	
AjuI	!NNNNNNCCAANNNNNNNNNTTC	0	
AjuI	CCAANNNNNNNTTCNNNNNNNNNNNNN!	0	
AjuI	!NNNNNNNGAANNNNNNNTTGG	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
AleI	CACNN!NNGTG	3	595; 745; 922
AlfI	GCANNNNNNTGCNNNNNNNNNNNN!	2	2487; 2559
AlfI	!NNNNNNNNNNGCANNNNNNNTGC	2	2453; 2525
AloI	GAACNNNNNNNTCCNNNNNNNNNNNN!	1	1995
AloI	!NNNNNNNNGGANNNNNNNGTTC	0	
AloI	GGANNNNNNNGTTCNNNNNNNNNNNN!	0	
AloI	!NNNNNNNGAACNNNNNNNTCC	1	1963
AluI	AG!CT	28	141; 147; 247; 263; 360; 434; 534; 585; 618; 690; 702; 723; 939; 987; 1011; 1138; 1473; 1692; 1859; 2116; 2411; 2699; 3019; 3477; 4274; 4531; 4577; 4667
AluBI	AG!CT	28	141; 147; 247; 263; 360; 434; 534; 585; 618; 690; 702; 723; 939; 987; 1011; 1138; 1473; 1692; 1859; 2116; 2411; 2699; 3019; 3477; 4274; 4531; 4577; 4667
AlwI	GGATCNNNN!	9	191; 520; 2781; 3092; 3338; 3730; 4089; 4187; 4273
AlwI	!NNNNNGATCC	6	178; 321; 3157; 3701; 4088; 4185
Alw21I	GWGCW!C	5	143; 265; 3026; 3216; 4521
Alw26I	GTCTCN!	0	
Alw26I	!NNNNNGAGAC	5	1391; 2337; 2755; 3774; 3902
Alw44I	G!TGCAC	1	4517
AlwNI	CAGNNN!CTG	3	1138; 4014; 4422
Ama87I	C!YCGRG	3	136; 179; 268
Aor13HI	T!CCGGA	0	
Aor51HI	AGC!GCT	1	119
ApaI	GGGCC!C	1	180
ApaBI	GCANNNNN!TGC	3	2481; 2553; 4015
ApaLI	G!TGCAC	1	4517
ApeKI	G!CWGC	22	111; 350; 357; 408; 411; 569; 723; 804; 1306; 1689; 2208; 2873; 2974; 3016; 3057; 3150; 3537; 3990; 4216; 4422; 4425; 4490
ApoI	R!AATTY	7	152; 1033; 1201; 1420; 1727; 1831; 1842
ApyPI	ATCGACNNNNNNNNNNNNNNNNNNNN!	1	3428
ApyPI	!NNNNNNNNNNNNNNNNNNNNGTCGAT	3	3222; 3875; 4713
AquII	GCCGNACNNNNNNNNNNNNNNNNNNNN!	1	3312
AquII	!NNNNNNNNNNNNNNNNNNNNGTNCGGC	1	635
AquIII	GAGGAGNNNNNNNNNNNNNNNNNNNN!	2	605; 2741
AquIII	!NNNNNNNNNNNNNNNNNNNCTCCTC	0	
AquIV	GRGGAAGNNNNNNNNNNNNNNNNNNNN!	0	
AquIV	!NNNNNNNNNNNNNNNNNNNCTCCYC	2	1176; 3483
ArsI	GACNNNNNNNTTYGNNNNNNNNNNNN!	0	
ArsI	!NNNNNNNCRAANNNNNNNGTC	1	827
ArsI	CRAANNNNNNNGTCNNNNNNNNNNNN!	1	859
ArsI	!NNNNNNNNGACNNNNNNNTTYG	0	
AscI	GG!CGCGCC	0	
AseI	AT!TAAT	0	
Asi256I	G!ATC	26	133; 184; 327; 475; 513; 705; 1006; 1155; 1374; 1571; 2751; 2755; 2774; 3085; 3163; 3244; 3253; 3331; 3707; 3723; 4082; 4094; 4172; 4180; 4191; 4266
AsiGI	A!CCGGT	1	189
AsiSI	GCGAT!CGC	0	
AspI	GACN!NNGTC	1	3031
Asp700I	GAANN!NNTTC	1	775
Asp718I	G!GTACC	1	168
AspA2I	C!CTAGG	2	2735; 3750
AspEI	GACNNN!NNGTC	0	
AspLEI	GCG!C	24	120; 473; 854; 895; 2179; 2187; 2213; 2235; 2244; 2257; 2288; 2907; 2915; 2979; 3016; 3282; 3542; 3718; 3804; 4207; 4316; 4490; 4590; 4657
AspS9I	G!GNCC	12	176; 177; 400; 483; 737; 1466; 2020; 3429; 3874; 3920; 3978; 4011
AssI	AGT!ACT	0	
AsuII	TT!CGAA	2	150; 3595
AsuC2I	CC!SGG	8	180; 181; 510; 594; 2917; 3077; 3690; 4454
AsuHPI	GGTGANNNNNNNNN!	4	912; 936; 3984; 4100
AsuHPI	!NNNNNNNTCACC	3	582; 2030; 3091
AsuNHI	G!CTAGC	1	114
AvaI	C!YCGRG	3	136; 179; 268

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AvaII	G!GWCC	4	483; 1466; 3429; 3874
AviII	TGC!GCA	1	3015
AvrII	C!CTAGG	2	2735; 3750
AxyI	CC!TNAGG	2	2393; 4025
BaeI	ACNNNNGTAYCNNNNNNNNNNNN!	0	
BaeI	!NNNNNNNGRTACNNNNNGT	0	
BaeI	GRTACNNNNGTNNNNNNNNNNNNNN!	0	
BaeI	!NNNNNNNNNACNNNNGTAYC	0	
BaeGI	GKGC!C	7	180; 605; 734; 983; 2859; 2952; 4521
BalI	TGG!CCA	1	2995
BamHI	G!GATCC	1	183
BanI	G!GYRCC	8	168; 562; 600; 1075; 1183; 2066; 2912; 2947
BanII	GRGCY!C	6	143; 180; 265; 2104; 3278; 3988
BanIII	AT!CGAT	1	2753
BarI	GAAGNNNNNTACNNNNNNNNNNNN!	1	1441
BarI	!NNNNNNNGTANNNNNNCTTC	0	
BarI	GTANNNNNNCTTCNNNNNNNNNNNN!	0	
BarI	!NNNNNNNGAAGNNNNNNNTAC	1	1409
BasI	CCANNNN!NTGG	0	
BauI	C!ACGAG	2	3631; 4658
BauI	C!TCGTG	2	745; 3505
BbeI	GGCG!C	1	2916
Bbr7I	GAAGACNNNNNNNN!	0	
Bbr7I	!NNNNNNNNNNNGTCTTC	0	
BbrPI	CAC!GTG	0	
BbsI	GAAGACNN!	0	
BbsI	!NNNNNNGTCTTC	0	
BbuI	GCATG!C	3	2483; 2555; 3318
BbvI	GCAGCNNNNNNNN!	10	362; 581; 816; 1318; 1701; 2986; 3028; 3549; 4002; 4502
BbvI	!NNNNNNNNNNNNNGCTGC	9	98; 395; 710; 2195; 2860; 3044; 3137; 4203; 4409
Bbv12I	GWGCW!C	5	143; 265; 3026; 3216; 4521
BbvCI	CC!TCAGC	0	
BbvCI	GC!TGAGG	0	
BccI	CCATCNNNN!	8	397; 613; 865; 1087; 2043; 2607; 3133; 3635
BccI	!NNNNNGATGG	9	541; 1060; 1168; 1209; 1279; 1387; 2011; 2791; 3219
BceAI	ACGGCNNNNNNNNNNNN!	10	321; 363; 414; 639; 699; 780; 891; 981; 3339; 3826
BceAI	!NNNNNNNNNNNNNGCCGT	3	2054; 2872; 4331
Bcefl	ACGGCNNNNNNNNNNNN!	10	321; 363; 414; 639; 699; 780; 891; 981; 3339; 3826
Bcefl	!NNNNNNNNNNNNNGCCGT	3	2055; 2873; 4332
BcgI	CGANNNNNNTGCNNNNNNNNNNNN!	1	689
BcgI	!NNNNNNNNNNNGCANNNNNNNTCG	0	
BcgI	GCANNNNNNTCGNNNNNNNNNNNN!	0	
BcgI	!NNNNNNNNNNCGANNNNNNTGC	1	655
BciVI	GTATCCNNNNNN!	3	2342; 3132; 4633
BciVI	!NNNNNGGATAC	0	
BclI	T!GATCA	3	1005; 1154; 1373
BcnI	CC!SGG	8	180; 181; 510; 594; 2917; 3077; 3690; 4454
BcuI	A!CTAGT	0	
BdaI	TGANNNNNNTCANNNNNNNNNNNN!	1	4766
BdaI	!NNNNNNNNNNNTGANNNNNNTCA	1	4732
BfaI	C!TAG	10	115; 1220; 1463; 1568; 1762; 2180; 2736; 3751; 4085; 4338
BfiI	ACTGGGNNNNN!	2	1126; 2862
BfiI	!NNNNCCCAGT	1	2614
BfmI	C!TRYAG	5	157; 248; 2248; 4375; 4566
BfoI	RGCGC!Y	5	121; 2180; 2188; 2916; 4591
BfrI	C!TTAAG	1	1795
BfuI	GTATCCNNNNNN!	3	2342; 3132; 4633
BfuI	!NNNNNGGATAC	0	
BfuAI	ACCTGCNNNN!	2	3181; 3631
BfuAI	!NNNNNNNNNGCAGGT	1	2800
BfuCI	!GATC	26	132; 183; 326; 474; 512; 704; 1005; 1154; 1373; 1570; 2750; 2754; 2773; 3084; 3162; 3243; 3252; 3330; 3706; 3722; 4081; 4093; 4171; 4179; 4190; 4265
BglI	GCCNNNN!NGGC	1	2688
BglII	A!GATCT	1	132

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BisI	GC!NGC	38	112; 351; 358; 409; 412; 506; 570; 724; 805; 1307; 1455; 1690; 2209; 2231; 2245; 2683; 2822; 2874; 2885; 2975; 2980; 3017; 3058; 3145; 3151; 3387; 3483; 3524; 3538; 3652; 3991; 4006; 4217; 4423; 4426; 4491; 4634; 4789
BlnI	C!CTAGG	2	2735; 3750
BlpI	GC!TNAGC	1	259
BlsI	GCN!GC	38	113; 352; 359; 410; 413; 507; 571; 725; 806; 1308; 1456; 1691; 2210; 2232; 2246; 2684; 2823; 2875; 2886; 2976; 2981; 3018; 3059; 3146; 3152; 3388; 3484; 3525; 3539; 3653; 3992; 4007; 4218; 4424; 4427; 4492; 4635; 4790
BmcAI	AGT!ACT	0	
Bme18I	G!GWCC	4	483; 1466; 3429; 3874
Bme1390I	CC!NGG	22	180; 181; 510; 594; 610; 735; 847; 922; 976; 2449; 2504; 2521; 2917; 3077; 3300; 3690; 3879; 3982; 4454; 4672; 4685; 4806
BmeRI	GACNN!NNGTC	0	
BmeT110I	C!YCGRG	3	136; 179; 268
BmgBI	CAC!GTC	2	211; 1323
BmgBI	GAC!GTG	0	
BmgT120I	GG!NCC	12	177; 178; 401; 484; 738; 1467; 2021; 3430; 3875; 3921; 3979; 4012
BmiI	GGN!NCC	22	170; 178; 185; 402; 564; 602; 1077; 1185; 1468; 2068; 2089; 2101; 2292; 2453; 2525; 2914; 2949; 3797; 3876; 3921; 4764; 4803
BmrI	ACTGGGNNNNN!	2	1126; 2862
BmrI	!NNNNCCCAGT	1	2614
BmrFI	CC!NGG	22	180; 181; 510; 594; 610; 735; 847; 922; 976; 2449; 2504; 2521; 2917; 3077; 3300; 3690; 3879; 3982; 4454; 4672; 4685; 4806
BmsI	GCATCNNNNN!	9	317; 941; 956; 1729; 2492; 2564; 3212; 3276; 3551
BmsI	!NNNNNNNNNGATGC	6	663; 1158; 2871; 3126; 3342; 4734
BmtI	GCTAG!C	1	118
BmuI	ACTGGGNNNNN!	2	1126; 2862
BmuI	!NNNNCCCAGT	1	2614
BoxI	GACNN!NNGTC	0	
BpiI	GAAGACNN!	0	
BpiI	!NNNNNGTCTTC	0	
BpI	GAGNNNNNCTCNNNNNNNNNNNN!	2	2702; 3601
BpI	!NNNNNNNGAGNNNNNCTC	2	2670; 3569
BpmI	CTGGAGNNNNNNNNNNNNNNNN!	3	511; 1009; 3753
BpmI	!NNNNNNNNNNNNNNNCTCCAG	1	3696
Bpu10I	CC!TNAGC	2	430; 448
Bpu10I	GC!TNAGG	0	
Bpu14I	TT!CGAA	2	150; 3595
Bpu1102I	GC!TNAGC	1	259
BpuAI	GAAGACNN!	0	
BpuAI	!NNNNNGTCTTC	0	
BpuEI	CTTGAGNNNNNNNNNNNNNNNN!	2	4207; 4746
BpuEI	!NNNNNNNNNNNNNNNCTCAAG	3	127; 3289; 4448
BpuMI	CC!SGG	8	180; 181; 510; 594; 2917; 3077; 3690; 4454
BpvUI	CGAT!CG	0	
BsaI	GGTCTCN!	0	
BsaI	!NNNNNGAGACC	1	3902
Bsa29I	AT!CGAT	1	2753
BsaAI	YAC!GTR	2	2029; 3217
BsaBI	GATNN!NNATC	2	1575; 2772
BsaHI	GR!CGYC	3	2913; 3615; 3694
BsaJI	C!CNNGG	22	172; 179; 593; 733; 756; 896; 920; 975; 2447; 2519; 2642; 2677; 2686; 2735; 3076; 3345; 3750; 3877; 3878; 3980; 3981; 4671
BsaMI	GAATGCN!	1	1664
BsaMI	G!CATTC	2	1264; 1757
BsaWI	W!CCGGW	6	123; 189; 2944; 3788; 4478; 4625
BsaXI	ACNNNNNCTCCNNNNNNNNNN!	1	1993
BsaXI	!NNNNNNNGGAGNNNNNNGT	0	
BsaXI	GGAGNNNNNGTNNNNNNNNNN!	0	
BsaXI	!NNNNNNNNNACNNNNNCTCC	1	1963

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BsbI	CAACACNNNNNNNNNNNNNNNNNNNN!	1	1022
BsbI	!NNNNNNNNNNNNNNNNNNNGTGTG	2	1914; 3821
Bsc4I	CCNNNNN!NNGG	18	509; 734; 897; 1925; 2251; 2643; 2894; 3438; 3719; 3751; 3883; 3918; 3968; 4000; 4353; 4632; 4798; 4816
BscAI	GCATCNNNN!	9	316; 940; 955; 1728; 2491; 2563; 3211; 3275; 3550
BscAI	!NNNNNNGATGC	6	666; 1161; 2874; 3129; 3345; 4737
Bse1I	ACTGGN!	4	1121; 2857; 3058; 4304
Bse1I	C!CAGT	5	438; 1942; 2620; 4416; 4429
Bse8I	GATNN!NNATC	2	1575; 2772
Bse21I	CC!TNAGG	2	2393; 4025
Bse118I	R!CCGGY	7	189; 565; 715; 2130; 3232; 3413; 3696
BseAI	T!CCGGA	0	
BseBI	CC!WGG	14	610; 735; 847; 922; 976; 2449; 2504; 2521; 3300; 3879; 3982; 4672; 4685; 4806
BseCI	AT!CGAT	1	2753
BseDI	C!CNNGG	22	172; 179; 593; 733; 756; 896; 920; 975; 2447; 2519; 2642; 2677; 2686; 2735; 3076; 3345; 3750; 3877; 3878; 3980; 3981; 4671
Bse3DI	GCAATGNN!	3	77; 1296; 3146
Bse3DI	!CATTGC	1	1505
BseGI	GGATGNN!	7	552; 1173; 1290; 2773; 3230; 3255; 3709
BseGI	!CATCC	3	605; 971; 2599
BseJI	GATNN!NNATC	2	1575; 2772
BseLI	CCNNNNN!NNGG	18	509; 734; 897; 1925; 2251; 2643; 2894; 3438; 3719; 3751; 3883; 3918; 3968; 4000; 4353; 4632; 4798; 4816
BseMI	GCAATGNN!	3	77; 1296; 3146
BseMI	!CATTGC	1	1505
BseMII	CTCAGNNNNNNNNNN!	2	143; 4039
BseMII	!NNNNNNNNCTGAG	8	250; 421; 439; 2384; 2686; 3567; 4139; 4548
BseNI	ACTGGN!	4	1121; 2857; 3058; 4304
BseNI	C!CAGT	5	438; 1942; 2620; 4416; 4429
BsePI	G!CGCGC	0	
BseRI	GAGGAGNNNNNNNNNN!	2	595; 2731
BseRI	!NNNNNNNNCTCCTC	0	
BseSI	GKGCMI!	7	180; 605; 734; 983; 2859; 2952; 4521
BseXI	GCAGCNNNNNNNN!	10	362; 581; 816; 1318; 1701; 2986; 3028; 3549; 4002; 4502
BseXI	!NNNNNNNNNNNGTCTG	9	98; 395; 710; 2195; 2860; 3044; 3137; 4203; 4409
BseX3I	C!GGCCG	2	1452; 2819
BseYI	C!CCAGC	4	1469; 2456; 2528; 4527
BseYI	G!CTGGG	1	3417
BsgI	GTGCAGNNNNNNNNNNNNNNNN!	2	376; 1325
BsgI	!NNNNNNNNNNNNNNNNCTGCAC	1	693
Bsh1236I	CG!CG	18	174; 473; 893; 1002; 1457; 1837; 2213; 2233; 2257; 2288; 2979; 3280; 3718; 3802; 3865; 3934; 4207; 4788
Bsh1285I	CGRY!CG	4	194; 1455; 2822; 4497
BshFI	GG!CC	25	178; 289; 316; 401; 638; 738; 767; 1454; 1879; 2021; 2676; 2682; 2691; 2734; 2821; 2995; 3386; 3413; 3922; 3979; 4012; 4357; 4791; 4809; 4820
BshNI	G!GYRCC	8	168; 562; 600; 1075; 1183; 2066; 2912; 2947
BshTI	A!CCGGT	1	189
BshVI	AT!CGAT	1	2753
BsiEI	CGRY!CG	4	194; 1455; 2822; 4497
BsiHKAI	GWGCW!C	5	143; 265; 3026; 3216; 4521
BsiHKCI	C!YCGRG	3	136; 179; 268
BsiSI	C!CGG	24	124; 180; 190; 509; 566; 593; 656; 716; 2131; 2818; 2895; 2917; 2945; 3076; 3166; 3233; 3414; 3689; 3697; 3789; 4263; 4453; 4479; 4626
BsiWI	C!GTACG	0	
BsII	CCNNNNN!NNGG	18	509; 734; 897; 1925; 2251; 2643; 2894; 3438; 3719; 3751; 3883; 3918; 3968; 4000; 4353; 4632; 4798; 4816
BsIFI	GGGACNNNNNNNNNN!	3	3064; 3596; 3705
BsIFI	!NNNNNNNNNNNNNGTCCC	4	2429; 2501; 2565; 3860
BsmI	GAATGCN!	1	1664
BsmI	G!CATTC	2	1264; 1757
BsmAI	GTCTCN!	0	
BsmAI	!NNNNNGAGAC	5	1391; 2337; 2755; 3774; 3902

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BsmBI	CGTCTCN!	0	
BsmBI	!NNNNNGAGACG	1	1391
BsmFI	GGGACNNNNNNNNNN!	3	3064; 3596; 3705
BsmFI	!NNNNNNNNNNNNNGTCCC	4	2429; 2501; 2565; 3860
BsnI	GG!CC	25	178; 289; 316; 401; 638; 738; 767; 1454; 1879; 2021; 2676; 2682; 2691; 2734; 2821; 2995; 3386; 3413; 3922; 3979; 4012; 4357; 4791; 4809; 4820
Bso31I	GGTCTCN!	0	
Bso31I	!NNNNNGAGACG	1	3902
BsoBI	C!YCGRG	3	136; 179; 268
Bsp13I	T!CCGGA	0	
Bsp19I	C!CATGG	2	2642; 3345
Bsp24I	GACNNNNNNTGGNNNNNNNNNN!	1	3716
Bsp24I	!NNNNNNNCCANNNNNNNGTC	2	4137; 4315
Bsp24I	CCANNNNNNGTCTNNNNNNNNNNNN!	2	4169; 4347
Bsp24I	!NNNNNNNGACNNNNNNNTGG	1	3684
Bsp68I	TCG!CGA	0	
Bsp119I	TT!CGAA	2	150; 3595
Bsp120I	G!GGCCC	1	176
Bsp143I	!GATC	26	132; 183; 326; 474; 512; 704; 1005; 1154; 1373; 1570; 2750; 2754; 2773; 3084; 3162; 3243; 3252; 3330; 3706; 3722; 4081; 4093; 4171; 4179; 4190; 4265
Bsp1286I	GDGCH!C	14	143; 180; 265; 605; 734; 983; 2104; 2859; 2952; 3026; 3216; 3278; 3988; 4521
Bsp1407I	T!GTACA	3	96; 536; 1480
Bsp1720I	GC!TNAGC	1	259
BspACI	C!CGC	33	172; 330; 503; 506; 783; 824; 891; 930; 1455; 2228; 2231; 2245; 2335; 2583; 2595; 2604; 2616; 2626; 2637; 2683; 2822; 2885; 3387; 3432; 3498; 3524; 3649; 3652; 3800; 3932; 4239; 4383; 4879
BspACI	G!CGG	24	174; 551; 557; 1451; 2173; 2200; 2288; 2398; 2979; 3043; 3144; 3147; 3427; 3482; 3580; 3718; 3865; 4005; 4248; 4493; 4614; 4633; 4760; 4788
BspCNI	CTCAGNNNNNNNN!	2	142; 4038
BspCNI	!NNNNNNNCTGAG	8	251; 422; 440; 2385; 2687; 3568; 4140; 4549
BspDI	AT!CGAT	1	2753
BspD6I	GACTCNNNN!	5	135; 1467; 1986; 3592; 4469
BspD6I	!NNNNNNNGAGTC	3	1264; 1949; 2381
BspEI	T!CCGGA	0	
BspFNI	CG!CG	18	174; 473; 893; 1002; 1457; 1837; 2213; 2233; 2257; 2288; 2979; 3280; 3718; 3802; 3865; 3934; 4207; 4788
BspHI	T!CATGA	4	1106; 1325; 2339; 4111
BspLI	GGN!NCC	22	170; 178; 185; 402; 564; 602; 1077; 1185; 1468; 2068; 2089; 2101; 2292; 2453; 2525; 2914; 2949; 3797; 3876; 3921; 4764; 4803
BspMI	ACCTGCNNNN!	2	3181; 3631
BspMI	!NNNNNNNNGCAGGT	1	2800
BspOI	GCTAG!C	1	118
BspPI	GGATCNNNN!	9	191; 520; 2781; 3092; 3338; 3730; 4089; 4187; 4273
BspPI	!NNNNNGATCC	6	178; 321; 3157; 3701; 4088; 4185
BspQI	GCTCTCN!	0	
BspQI	!NNNNGAAGAGC	2	3257; 3467
BspTI	C!TTAAG	1	1795
BspT104I	TT!CGAA	2	150; 3595
BspT107I	G!GYRCC	8	168; 562; 600; 1075; 1183; 2066; 2912; 2947
BspTNI	GGTCTCN!	0	
BspTNI	!NNNNNGAGACC	1	3902
BsrI	ACTGGN!	4	1121; 2857; 3058; 4304
BsrI	C!CAGT	5	438; 1942; 2620; 4416; 4429
BsrBI	CCG!CTC	2	2337; 3526
BsrBI	GAG!CGG	2	2173; 3580
BsrDI	GCAATGNN!	3	77; 1296; 3146
BsrDI	!CATTGC	1	1505
BsrFI	R!CCGGY	7	189; 565; 715; 2130; 3232; 3413; 3696
BsrGI	T!GTACA	3	96; 536; 1480
BsrSI	ACTGGN!	4	1121; 2857; 3058; 4304

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BsrSI	C!CAGT	5	438; 1942; 2620; 4416; 4429
BssAI	R!CCGGY	7	189; 565; 715; 2130; 3232; 3413; 3696
BssECI	C!CNNGG	22	172; 179; 593; 733; 756; 896; 920; 975; 2447; 2519; 2642; 2677; 2686; 2735; 3076; 3345; 3750; 3877; 3878; 3980; 3981; 4671
BssHII	G!CGCGC	0	
BssKI	!CCNGG	22	178; 179; 508; 592; 608; 733; 845; 920; 974; 2447; 2502; 2519; 2915; 3075; 3298; 3688; 3877; 3980; 4452; 4670; 4683; 4804
BssMI	!GATC	26	132; 183; 326; 474; 512; 704; 1005; 1154; 1373; 1570; 2750; 2754; 2773; 3084; 3162; 3243; 3252; 3330; 3706; 3722; 4081; 4093; 4171; 4179; 4190; 4265
BssNI	GR!CGYC	3	2913; 3615; 3694
BssNAI	GTA!TAC	0	
BssSI	C!ACGAG	2	3631; 4658
BssSI	C!TCGTG	2	745; 3505
BssT1I	C!CWWGG	4	2642; 2735; 3345; 3750
Bst6I	CTCTCN!	0	
Bst6I	!NNNNGAAGAG	3	2380; 3257; 3467
Bst98I	C!TTAAG	1	1795
Bst1107I	GTA!TAC	0	
BstACI	GR!CGYC	3	2913; 3615; 3694
BstAFI	C!TTAAG	1	1795
BstAPI	GCANNNN!NTGC	3	2480; 2552; 4014
BstAUI	T!GTACA	3	96; 536; 1480
BstBI	TT!CGAA	2	150; 3595
Bst2BI	C!ACGAG	2	3631; 4658
Bst2BI	C!TCGTG	2	745; 3505
BstBAI	YAC!GTR	2	2029; 3217
Bst4CI	ACN!GT	10	168; 1104; 2004; 3293; 3409; 3517; 3840; 4331; 4801; 4872
BstC8I	GCN!NGC	32	109; 116; 176; 355; 362; 688; 721; 783; 2132; 2175; 2189; 2462; 2481; 2534; 2553; 2807; 2993; 3212; 3278; 3284; 3316; 3357; 3361; 3415; 3698; 3885; 3932; 3988; 4010; 4221; 4781; 4818
BstDEI	C!TNAG	11	129; 259; 430; 448; 1335; 2393; 2695; 3576; 4025; 4148; 4557
BstDSI	C!CRYGG	3	172; 2642; 3345
BstEII	G!GTNACC	0	
BstENI	CCTNN!NNNAGG	0	
BstF5I	GGATGNN!	7	552; 1173; 1290; 2773; 3230; 3255; 3709
BstF5I	!CATCC	3	605; 971; 2599
BstFNI	CG!CG	18	174; 473; 893; 1002; 1457; 1837; 2213; 2233; 2257; 2288; 2979; 3280; 3718; 3802; 3865; 3934; 4207; 4788
BstH2I	RGCGC!Y	5	121; 2180; 2188; 2916; 4591
BstHHI	GCG!C	24	120; 473; 854; 895; 2179; 2187; 2213; 2235; 2244; 2257; 2288; 2907; 2915; 2979; 3016; 3282; 3542; 3718; 3804; 4207; 4316; 4490; 4590; 4657
BstKTI	GAT!C	26	135; 186; 329; 477; 515; 707; 1008; 1157; 1376; 1573; 2753; 2757; 2776; 3087; 3165; 3246; 3255; 3333; 3709; 3725; 4084; 4096; 4174; 4182; 4193; 4268
BstMAI	GTCTCN!	0	
BstMAI	!NNNNGAGAC	5	1391; 2337; 2755; 3774; 3902
BstMBI	!GATC	26	132; 183; 326; 474; 512; 704; 1005; 1154; 1373; 1570; 2750; 2754; 2773; 3084; 3162; 3243; 3252; 3330; 3706; 3722; 4081; 4093; 4171; 4179; 4190; 4265
BstMCI	CGRY!CG	4	194; 1455; 2822; 4497
BstMWI	GCNNNNN!NNGC	27	117; 244; 569; 656; 716; 729; 773; 1008; 2140; 2170; 2197; 2239; 2480; 2552; 2603; 2682; 2904; 2988; 3011; 3150; 3273; 3356; 3623; 3810; 4014; 4213; 4785
BstNI	CC!WGG	14	610; 735; 847; 922; 976; 2449; 2504; 2521; 3300; 3879; 3982; 4672; 4685; 4806
BstNSI	RCATG!Y	4	2483; 2555; 3318; 4835
BstOI	CC!WGG	14	610; 735; 847; 922; 976; 2449; 2504; 2521; 3300; 3879; 3982; 4672; 4685; 4806
BstPI	G!GTNACC	0	
BstPAI	GACNN!NNGTC	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
BstSCI	!CCNGG	22	178; 179; 508; 592; 608; 733; 845; 920; 974; 2447; 2502; 2519; 2915; 3075; 3298; 3688; 3877; 3980; 4452; 4670; 4683; 4804
BstSFI	C!TRYAG	5	157; 248; 2248; 4375; 4566
BstSLI	GKGCMI!C	7	180; 605; 734; 983; 2859; 2952; 4521
BstSNI	TAC!GTA	0	
BstUI	CG!CG	18	174; 473; 893; 1002; 1457; 1837; 2213; 2233; 2257; 2288; 2979; 3280; 3718; 3802; 3865; 3934; 4207; 4788
Bst2UI	CC!WGG	14	610; 735; 847; 922; 976; 2449; 2504; 2521; 3300; 3879; 3982; 4672; 4685; 4806
BstV1I	GCAGCNNNNNNNN!	10	362; 581; 816; 1318; 1701; 2986; 3028; 3549; 4002; 4502
BstV1I	!NNNNNNNNNNNGCTGC	9	98; 395; 710; 2195; 2860; 3044; 3137; 4203; 4409
BstV2I	GAAGACNN!	0	
BstV2I	!NNNNNNNGTCTTC	0	
BstXI	CCANNNNN!NTGG	0	
BstX2I	R!GATCY	10	132; 183; 326; 3084; 3330; 3722; 4081; 4093; 4179; 4190
BstYI	R!GATCY	10	132; 183; 326; 3084; 3330; 3722; 4081; 4093; 4179; 4190
BstZI	C!GGCCG	2	1452; 2819
BstZ17I	GTA!TAC	0	
BsuI	GTATCCNNNNNN!	3	2342; 3132; 4633
BsuI	!NNNNNGGATAC	0	
Bsu15I	AT!CGAT	1	2753
Bsu36I	CC!TNAGG	2	2393; 4025
BsuRI	GG!CC	25	178; 289; 316; 401; 638; 738; 767; 1454; 1879; 2021; 2676; 2682; 2691; 2734; 2821; 2995; 3386; 3413; 3922; 3979; 4012; 4357; 4791; 4809; 4820
BsuTUI	AT!CGAT	1	2753
BtgI	C!CRYGG	3	172; 2642; 3345
BtgZI	GCGATGNNNNNNNNNN!	4	686; 1085; 2030; 3365
BtgZI	!NNNNNNNNNNNNNNCATCGC	2	3184; 3528
BthCI	GCNG!C	38	114; 353; 360; 411; 414; 508; 572; 726; 807; 1309; 1457; 1692; 2211; 2233; 2247; 2685; 2824; 2876; 2887; 2977; 2982; 3019; 3060; 3147; 3153; 3389; 3485; 3526; 3540; 3654; 3993; 4008; 4219; 4425; 4428; 4493; 4636; 4791
BtrI	CAC!GTC	2	211; 1323
BtrI	GAC!GTG	0	
BtsI	GCAGTGNN!	0	
BtsI	!CACTGC	1	1752
BtsCI	GGATGNN!	7	552; 1173; 1290; 2773; 3230; 3255; 3709
BtsCI	!CATCC	3	605; 971; 2599
BtuMI	TCG!CGA	0	
BveI	ACCTGCNNNN!	2	3181; 3631
BveI	!NNNNNNNNNGCAGGT	1	2800
Cac8I	GCN!NGC	32	109; 116; 176; 355; 362; 688; 721; 783; 2132; 2175; 2189; 2462; 2481; 2534; 2553; 2807; 2993; 3212; 3278; 3284; 3316; 3357; 3361; 3415; 3698; 3885; 3932; 3988; 4010; 4221; 4781; 4818
CaiI	CAGNNN!CTG	3	1138; 4014; 4422
CciI	T!CATGA	4	1106; 1325; 2339; 4111
CciNI	GC!GGCCGC	1	1452
CdiI	CATC!G	7	393; 936; 951; 3202; 3207; 3405; 3546
CdiI	C!GATG	4	672; 1071; 2016; 3351
CdpI	GCGGAGNNNNNNNNNNNNNNNNNNNN!	1	4785
CdpI	!NNNNNNNNNNNNNNNNNNNNCTCCGC	2	2574; 2616
CelII	GC!TNAGC	1	259
CfoI	GCG!C	24	120; 473; 854; 895; 2179; 2187; 2213; 2235; 2244; 2257; 2288; 2907; 2915; 2979; 3016; 3282; 3542; 3718; 3804; 4207; 4316; 4490; 4590; 4657
CfrI	Y!GGCCR	7	287; 636; 1452; 2819; 2993; 3384; 3411
Cfr9I	C!CCGGG	1	179
Cfr10I	R!CCGGY	7	189; 565; 715; 2130; 3232; 3413; 3696
Cfr13I	G!GNCC	12	176; 177; 400; 483; 737; 1466; 2020; 3429; 3874; 3920; 3978; 4011
Cfr42I	CCG!GG	1	175
ChaI	GATC!	26	136; 187; 330; 478; 516; 708; 1009; 1158; 1377; 1574; 2754; 2758; 2777; 3088; 3166; 3247; 3256; 3334; 3710; 3726; 4085; 4097; 4175; 4183; 4194; 4269



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
CjeI	CCANNNNNNGTNNNNNNNNNNNNNNNN!	4	2730; 4170; 4270; 4348
CjeI	!NNNNNNNNNACNNNNNNNTGG	5	2397; 2492; 3684; 4234; 4789
CjeI	ACNNNNNTGGNNNNNNNNNNNNNN!	5	2431; 2526; 3718; 4268; 4823
CjeI	!NNNNNNNNCCANNNNNNGT	4	2696; 4136; 4236; 4314
CjePI	CCANNNNNNTCNNNNNNNNNNNNNN!	2	4170; 4348
CjePI	!NNNNNNNNGANNNNNNNNNTGG	2	3684; 4283
CjePI	GANNNNNNNTGGNNNNNNNNNNNN!	2	3717; 4316
CjePI	!NNNNNNNNCCANNNNNNNNTC	2	4137; 4315
Clai	AT!CGAT	1	2753
CpoI	CG!GWCCG	1	3429
CseI	GACGCNNNNN!	2	3623; 3702
CseI	!NNNNNNNNNNGCGTC	3	2246; 4141; 4719
CsiI	A!CCWGGT	1	2502
CspI	CG!GWCCG	1	3429
Csp6I	G!TAC	7	97; 169; 537; 993; 1426; 1481; 3218
Csp45I	TT!CGAA	2	150; 3595
CspAI	A!CCGGT	1	189
CspCI	CAANNNNNGTGGNNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNCCACNNNNNTTG	0	
CspCI	CCACNNNNNTTGNNNNNNNNNNNNN!	0	
CspCI	!NNNNNNNNNNCAANNNNNNGTGG	0	
CstMI	AAGGAGNNNNNNNNNNNNNNNNNN!	3	983; 2193; 3802
CstMI	!NNNNNNNNNNNNNNNNNNCTCCTT	0	
CviAII	C!ATG	21	201; 285; 480; 525; 798; 828; 1107; 1326; 2340; 2480; 2552; 2643; 2784; 3129; 3315; 3346; 3372; 3728; 4112; 4832; 4883
CviJI	RG!CY	99	10; 111; 141; 147; 178; 247; 258; 263; 289; 316; 360; 401; 434; 534; 585; 618; 638; 690; 702; 723; 738; 761; 767; 839; 939; 953; 987; 1011; 1045; 1138; 1219; 1454; 1473; 1582; 1692; 1859; 1879; 2021; 2102; 2116; 2130; 2411; 2452; 2524; 2647; 2676; 2682; 2691; 2699; 2722; 2734; 2740; 2821; 2838; 2846; 2873; 2898; 2982; 2991; 2995; 3019; 3057; 3133; 3150; 3169; 3232; 3276; 3286; 3303; 3386; 3413; 3417; 3454; 3477; 3493; 3673; 3700; 3761; 3883; 3922; 3979; 3986; 3993; 4012; 4023; 4274; 4303; 4346; 4357; 4422; 4501; 4526; 4531; 4577; 4667; 4765; 4791; 4809; 4820
CviKI-1	RG!CY	99	10; 111; 141; 147; 178; 247; 258; 263; 289; 316; 360; 401; 434; 534; 585; 618; 638; 690; 702; 723; 738; 761; 767; 839; 939; 953; 987; 1011; 1045; 1138; 1219; 1454; 1473; 1582; 1692; 1859; 1879; 2021; 2102; 2116; 2130; 2411; 2452; 2524; 2647; 2676; 2682; 2691; 2699; 2722; 2734; 2740; 2821; 2838; 2846; 2873; 2898; 2982; 2991; 2995; 3019; 3057; 3133; 3150; 3169; 3232; 3276; 3286; 3303; 3386; 3413; 3417; 3454; 3477; 3493; 3673; 3700; 3761; 3883; 3922; 3979; 3986; 3993; 4012; 4023; 4274; 4303; 4346; 4357; 4422; 4501; 4526; 4531; 4577; 4667; 4765; 4791; 4809; 4820
CviQI	G!TAC	7	97; 169; 537; 993; 1426; 1481; 3218
DdeI	C!TNAG	11	129; 259; 430; 448; 1335; 2393; 2695; 3576; 4025; 4148; 4557
DinI	GGC!GCC	1	2914
DpnI	GA!TC	26	134; 185; 328; 476; 514; 706; 1007; 1156; 1375; 1572; 2752; 2756; 2775; 3086; 3164; 3245; 3254; 3332; 3708; 3724; 4083; 4095; 4173; 4181; 4192; 4267
DpnII	!GATC	26	132; 183; 326; 474; 512; 704; 1005; 1154; 1373; 1570; 2750; 2754; 2773; 3084; 3162; 3243; 3252; 3330; 3706; 3722; 4081; 4093; 4171; 4179; 4190; 4265
DraI	TTT!AAA	3	1615; 4057; 4076
DraII	RG!GNCCY	2	1466; 4011
DraIII	CACNN!GTG	1	2029
DraRI	CAAGNACNNNNNNNNNNNNNNNNNN!	2	893; 4393
DraRI	!NNNNNNNNNNNNNNNNNGTNCCTG	0	
DrdI	GACNNN!NNGTC	4	1405; 1984; 2940; 4729
DrdIV	TACGACNNNNNNNNNNNNNNNNNN!	0	
DrdIV	!NNNNNNNNNNNNNNNNNGTCGTA	1	193
DriI	GACNNN!NNGTC	0	
DseDI	GACNNN!NNGTC	4	1405; 1984; 2940; 4729
EaeI	Y!GGCCR	7	287; 636; 1452; 2819; 2993; 3384; 3411
EagI	C!GGCCG	2	1452; 2819
Eam1104I	CTCTTCN!	0	
Eam1104I	!NNNNGAAGAG	3	2380; 3257; 3467

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Eam1105I	GACNNN!NNGTC	0	
EarI	CTCTCN!	0	
EarI	!NNNNGAAGAG	3	2380; 3257; 3467
EciI	GGCGGANNNNNNNNNN!	4	2413; 3442; 4629; 4775
EciI	!NNNNNNNNNTCCGCC	5	319; 813; 2584; 2605; 2626
Ecl136II	GAG!CTC	2	141; 263
EclXI	C!GGCCG	2	1452; 2819
Eco24I	GRGCI!C	6	143; 180; 265; 2104; 3278; 3988
Eco31I	GGTCTCN!	0	
Eco31I	!NNNNNGAGACC	1	3902
Eco32I	GAT!ATC	0	
Eco47I	G!GWCC	4	483; 1466; 3429; 3874
Eco47III	AGC!GCT	1	119
Eco52I	C!GGCCG	2	1452; 2819
Eco57I	CTGAAGNNNNNNNNNNNNNN!	5	718; 790; 961; 3059; 3491
Eco57I	!NNNNNNNNNNNNNNCTTCAG	1	4289
Eco72I	CAC!GTG	0	
Eco81I	CC!TNAGG	2	2393; 4025
Eco88I	C!YCGRG	3	136; 179; 268
Eco91I	G!GTNACC	0	
Eco105I	TAC!GTA	0	
Eco130I	C!CWWGG	4	2642; 2735; 3345; 3750
Eco147I	AGG!CCT	1	2734
EcoHI	!CISGG	8	178; 179; 508; 592; 2915; 3075; 3688; 4452
EcoICRI	GAG!CTC	2	141; 263
Eco57MI	CTGRAGNNNNNNNNNNNNNN!	8	511; 718; 790; 961; 1009; 3059; 3491; 3753
Eco57MI	!NNNNNNNNNNNNNNCTYCAG	2	3696; 4289
EcoNI	CCTNN!NNNAGG	0	
Eco065I	G!GTNACC	0	
Eco0109I	RG!GNCCY	2	1466; 4011
EcoRI	G!AATTC	3	152; 1033; 1420
EcoRII	!CCWGG	14	608; 733; 845; 920; 974; 2447; 2502; 2519; 3298; 3877; 3980; 4670; 4683; 4804
EcoRV	GAT!ATC	0	
EcoT14I	C!CWWGG	4	2642; 2735; 3345; 3750
EcoT22I	ATGCA!T	3	2485; 2557; 4888
EcoT38I	GRGCI!C	6	143; 180; 265; 2104; 3278; 3988
Eco53kl	GAG!CTC	2	141; 263
EgeI	GGC!GCC	1	2914
EheI	GGC!GCC	1	2914
ErhI	C!CWWGG	4	2642; 2735; 3345; 3750
EsaBC3I	TC!GA	19	138; 151; 164; 270; 342; 615; 909; 936; 2063; 2754; 3027; 3183; 3207; 3243; 3405; 3596; 3641; 3896; 4734
Esp3I	CGTCTCN!	0	
Esp3I	!NNNNNGAGACG	1	1391
FaeI	CATG!	21	204; 288; 483; 528; 801; 831; 1110; 1329; 2343; 2483; 2555; 2646; 2787; 3132; 3318; 3349; 3375; 3731; 4115; 4835; 4886
FaiI	YA!TR	52	83; 202; 250; 281; 286; 481; 526; 799; 829; 1108; 1153; 1213; 1298; 1327; 1415; 1497; 1575; 1585; 1651; 1696; 1901; 2329; 2341; 2472; 2481; 2544; 2553; 2577; 2644; 2668; 2785; 2849; 3130; 3155; 3316; 3347; 3373; 3445; 3661; 3729; 3807; 3859; 4020; 4039; 4041; 4113; 4391; 4580; 4696; 4769; 4833; 4884
FalI	AAGNNNNNCTNNNNNNNNNNNN!	5	91; 336; 1062; 1526; 3253
FalI	!NNNNNNNNAAGNNNNNCTT	5	59; 304; 1030; 1494; 3221
FaqI	GGGACNNNNNNNNNN!	3	3064; 3596; 3705
FaqI	!NNNNNNNNNNNNNGTCCC	4	2429; 2501; 2565; 3860
FatI	!CATG	21	200; 284; 479; 524; 797; 827; 1106; 1325; 2339; 2479; 2551; 2642; 2783; 3128; 3314; 3345; 3371; 3727; 4111; 4831; 4882
FauI	CCCGCNNNN!	7	790; 898; 2235; 2590; 2611; 3807; 3939
FauI	!NNNNNNNGCGGG	6	167; 2166; 3036; 3573; 3711; 3858
FauNDI	CA!TATG	0	
FbaI	T!GATCA	3	1005; 1154; 1373
FblI	GT!MKAC	1	163
FmuI	GGNC!C	12	179; 180; 403; 486; 740; 1469; 2023; 3432; 3877; 3923; 3981; 4014

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
Fnu4HI	GC!NGC	38	112; 351; 358; 409; 412; 506; 570; 724; 805; 1307; 1455; 1690; 2209; 2231; 2245; 2683; 2822; 2874; 2885; 2975; 2980; 3017; 3058; 3145; 3151; 3387; 3483; 3524; 3538; 3652; 3991; 4006; 4217; 4423; 4426; 4491; 4634; 4789
FokI	GGATGNNNNNNNNNN!	7	559; 1180; 1297; 2780; 3237; 3262; 3716
FokI	!NNNNNNNNNNNNNNCATCC	3	592; 958; 2586
FriOI	GRGCY!C	6	143; 180; 265; 2104; 3278; 3988
FseI	GGCCGG!CC	0	
FspI	TGC!GCA	1	3015
FspAI	RTGC!GCAY	0	
FspBI	C!TAG	10	115; 1220; 1463; 1568; 1762; 2180; 2736; 3751; 4085; 4338
FspEI	CCNNNNNNNNNNNN!	148	24; 58; 102; 137; 185; 200; 303; 330; 346; 378; 399; 415; 429; 451; 472; 499; 516; 579; 606; 622; 652; 669; 690; 708; 726; 740; 756; 781; 795; 837; 859; 903; 933; 988; 1029; 1059; 1092; 1141; 1200; 1270; 1468; 1482; 1596; 1635; 1649; 1790; 1885; 1909; 1932; 1955; 1973; 1995; 2016; 2035; 2054; 2083; 2104; 2118; 2144; 2232; 2258; 2307; 2348; 2366; 2405; 2421; 2459; 2516; 2531; 2588; 2608; 2622; 2639; 2653; 2690; 2705; 2748; 2831; 2898; 2929; 2949; 2964; 3009; 3023; 3089; 3103; 3122; 3138; 3179; 3199; 3246; 3296; 3312; 3332; 3357; 3377; 3400; 3427; 3445; 3471; 3511; 3537; 3561; 3617; 3631; 3659; 3702; 3723; 3758; 3802; 3890; 3914; 3936; 3956; 3972; 3993; 4007; 4026; 4110; 4130; 4158; 4173; 4207; 4249; 4276; 4291; 4336; 4360; 4374; 4396; 4422; 4442; 4466; 4492; 4540; 4559; 4578; 4604; 4639; 4684; 4714; 4728; 4779; 4793; 4818; 4834; 4855; 4884
FspEI	!NNNNNNNNNNNNNNNGG	128	93; 151; 175; 204; 236; 271; 290; 328; 377; 466; 494; 529; 551; 578; 604; 641; 668; 701; 720; 743; 821; 853; 883; 907; 928; 946; 973; 1024; 1052; 1075; 1095; 1132; 1150; 1201; 1246; 1267; 1322; 1379; 1436; 1474; 1518; 1584; 1684; 1753; 1783; 1861; 1910; 1932; 1960; 1996; 2041; 2070; 2106; 2125; 2153; 2173; 2236; 2259; 2367; 2399; 2417; 2446; 2489; 2518; 2629; 2658; 2701; 2722; 2750; 2783; 2803; 2828; 2855; 2880; 2902; 2930; 2956; 2977; 3028; 3049; 3067; 3115; 3151; 3207; 3232; 3256; 3285; 3308; 3332; 3358; 3380; 3399; 3424; 3464; 3500; 3565; 3650; 3674; 3703; 3737; 3758; 3778; 3823; 3850; 3869; 3902; 3954; 3985; 4012; 4064; 4162; 4233; 4278; 4339; 4404; 4438; 4464; 4482; 4518; 4588; 4611; 4633; 4657; 4690; 4738; 4773; 4791; 4848
Fsp4HI	GC!NGC	38	112; 351; 358; 409; 412; 506; 570; 724; 805; 1307; 1455; 1690; 2209; 2231; 2245; 2683; 2822; 2874; 2885; 2975; 2980; 3017; 3058; 3145; 3151; 3387; 3483; 3524; 3538; 3652; 3991; 4006; 4217; 4423; 4426; 4491; 4634; 4789
GdiII	C!GGCCR	3	636; 1452; 2819
GdiII	Y!GGCCG	5	287; 1452; 2819; 3384; 3411
GlaI	GC!GC	24	119; 472; 853; 894; 2178; 2186; 2212; 2234; 2243; 2256; 2287; 2906; 2914; 2978; 3015; 3281; 3541; 3717; 3803; 4206; 4315; 4489; 4589; 4656
GluI	GC!NGC	38	112; 351; 358; 409; 412; 506; 570; 724; 805; 1307; 1455; 1690; 2209; 2231; 2245; 2683; 2822; 2874; 2885; 2975; 2980; 3017; 3058; 3145; 3151; 3387; 3483; 3524; 3538; 3652; 3991; 4006; 4217; 4423; 4426; 4491; 4634; 4789
GsaI	CCCAG!C	4	1473; 2460; 2532; 4531
GsaI	GCTGG!G	1	3421
GsuI	CTGGAGNNNNNNNNNNNNNNNN!	3	511; 1009; 3753
GsuI	!NNNNNNNNNNNNNNCTCCAG	1	3696
HaeI	WGG!CCW	6	316; 2734; 2995; 4357; 4809; 4820
HaeII	RGCGC!Y	5	121; 2180; 2188; 2916; 4591
HaeIII	GG!CC	25	178; 289; 316; 401; 638; 738; 767; 1454; 1879; 2021; 2676; 2682; 2691; 2734; 2821; 2995; 3386; 3413; 3922; 3979; 4012; 4357; 4791; 4809; 4820
HaeIV	GAYNNNNNNRTCNNNNNNNNNNNNNN!	1	3109
HaeIV	!NNNNNNNNNGAYNNNNNNRTC	1	3075
HaeIV	GAYNNNNNNRTCNNNNNNNNNNNNNN!	1	3108
HaeIV	!NNNNNNNGAYNNNNNNRTC	1	3077
HapII	C!CGG	24	124; 180; 190; 509; 566; 593; 656; 716; 2131; 2818; 2895; 2917; 2945; 3076; 3166; 3233; 3414; 3689; 3697; 3789; 4263; 4453; 4479; 4626
HgaI	GACGCNNNNN!	2	3623; 3702
HgaI	!NNNNNNNNNNNGCGTC	3	2246; 4141; 4719

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
HhaI	GCG!C	24	120; 473; 854; 895; 2179; 2187; 2213; 2235; 2244; 2257; 2288; 2907; 2915; 2979; 3016; 3282; 3542; 3718; 3804; 4207; 4316; 4490; 4590; 4657
Hin1I	GR!CGYC	3	2913; 3615; 3694
Hin1II	CATG!	21	204; 288; 483; 528; 801; 831; 1110; 1329; 2343; 2483; 2555; 2646; 2787; 3132; 3318; 3349; 3375; 3731; 4115; 4835; 4886
Hin4I	GAYNNNNNVTCNNNNNNNNNNNN!	1	3108
Hin4I	!NNNNNNNNGABNNNNNNRTC	2	3076; 3106
Hin4I	GABNNNNNRTCNNNNNNNNNNNN!	2	3108; 3138
Hin4I	!NNNNNNNNGAYNNNNNVTC	1	3076
Hin6I	G!CGC	24	118; 471; 852; 893; 2177; 2185; 2211; 2233; 2242; 2255; 2286; 2905; 2913; 2977; 3014; 3280; 3540; 3716; 3802; 4205; 4314; 4488; 4588; 4655
HinP1I	G!CGC	24	118; 471; 852; 893; 2177; 2185; 2211; 2233; 2242; 2255; 2286; 2905; 2913; 2977; 3014; 3280; 3540; 3716; 3802; 4205; 4314; 4488; 4588; 4655
HincII	GTY!RAC	3	164; 1410; 1676
HindII	GTY!RAC	3	164; 1410; 1676
HindIII	A!AGCTT	1	145
HinfI	G!ANTC	13	127; 1271; 1459; 1956; 1978; 2388; 3398; 3532; 3584; 3642; 3679; 4461; 4857
HpaI	GTT!AAC	1	1676
HpaII	C!CGG	24	124; 180; 190; 509; 566; 593; 656; 716; 2131; 2818; 2895; 2917; 2945; 3076; 3166; 3233; 3414; 3689; 3697; 3789; 4263; 4453; 4479; 4626
HphI	GGTGANNNNNNNN!	4	912; 936; 3984; 4100
HphI	!NNNNNNNTCACC	3	582; 2030; 3091
Hpy8I	GTN!NAC	10	164; 590; 633; 927; 1410; 1676; 1960; 1977; 2032; 4519
Hpy99I	CGWCG!	13	168; 215; 343; 400; 631; 877; 3003; 3031; 3325; 3340; 3617; 4002; 4735
Hpy166II	GTN!NAC	10	164; 590; 633; 927; 1410; 1676; 1960; 1977; 2032; 4519
Hpy188I	TCN!GA	15	132; 244; 1124; 1270; 1378; 2087; 2696; 2880; 3224; 3577; 3678; 4157; 4291; 4644; 4722
Hpy188III	TC!NNGA	27	136; 270; 324; 447; 498; 747; 1107; 1326; 2340; 2392; 2705; 2758; 2931; 3247; 3256; 3339; 3395; 3439; 3529; 3562; 3631; 4112; 4186; 4269; 4367; 4465; 4599
HpyAV	CCTTCNNNNNN!	4	1056; 3558; 3665; 4344
HpyAV	!NNNNNGAAGG	9	829; 936; 2146; 3041; 3770; 3786; 3969; 4286; 4596
HpyCH4III	ACN!GT	10	168; 1104; 2004; 3293; 3409; 3517; 3840; 4331; 4801; 4872
HpyCH4IV	A!CGT	16	210; 275; 338; 542; 629; 842; 1317; 1322; 1973; 1985; 2028; 2138; 3029; 3216; 3997; 4130
HpyCH4V	TG!CA	24	55; 159; 357; 710; 1146; 1306; 1441; 1525; 1662; 1689; 1757; 2474; 2483; 2546; 2555; 2670; 2746; 2805; 2964; 3139; 3153; 4223; 4519; 4886
HpyF3I	C!TNAG	11	129; 259; 430; 448; 1335; 2393; 2695; 3576; 4025; 4148; 4557
HpyF10VI	GCNNNNN!NNGC	27	117; 244; 569; 656; 716; 729; 773; 1008; 2140; 2170; 2197; 2239; 2480; 2552; 2603; 2682; 2904; 2988; 3011; 3150; 3273; 3356; 3623; 3810; 4014; 4213; 4785
Hsp92I	GR!CGYC	3	2913; 3615; 3694
Hsp92II	CATG!	21	204; 288; 483; 528; 801; 831; 1110; 1329; 2343; 2483; 2555; 2646; 2787; 3132; 3318; 3349; 3375; 3731; 4115; 4835; 4886
HspAI	G!CGC	24	118; 471; 852; 893; 2177; 2185; 2211; 2233; 2242; 2255; 2286; 2905; 2913; 2977; 3014; 3280; 3540; 3716; 3802; 4205; 4314; 4488; 4588; 4655
KasI	G!GCGCC	1	2912
KfII	GG!GWCCC	0	
KpnI	GGTAC!C	1	172
Kpn2I	T!CCGGA	0	
KspI	CCGC!GG	1	175
Ksp22I	T!GATCA	3	1005; 1154; 1373
KspAI	GTT!AAC	1	1676
Kzo9I	!GATC	26	132; 183; 326; 474; 512; 704; 1005; 1154; 1373; 1570; 2750; 2754; 2773; 3084; 3162; 3243; 3252; 3330; 3706; 3722; 4081; 4093; 4171; 4179; 4190; 4265
LguI	GCTCTCN!	0	
LguI	!NNNNGAAGAGC	2	3257; 3467
LpnI	RGC!GCY	5	119; 2178; 2186; 2914; 4589

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
LpnPI	CCDGNNNNNNNNNN!	64	58; 137; 193; 388; 442; 460; 499; 522; 579; 606; 622; 669; 709; 729; 747; 781; 859; 934; 988; 1483; 1650; 1955; 2144; 2367; 2405; 2421; 2461; 2516; 2533; 2633; 2718; 2831; 2908; 2930; 2953; 3089; 3103; 3122; 3179; 3246; 3296; 3312; 3369; 3427; 3636; 3702; 3726; 3802; 3891; 3994; 4027; 4258; 4276; 4422; 4442; 4466; 4492; 4541; 4639; 4684; 4714; 4793; 4818; 4855
LpnPI	!NNNNNNNNNNNNNCHGG	58	93; 165; 215; 475; 494; 551; 578; 604; 641; 701; 720; 832; 907; 961; 1102; 1132; 1518; 1996; 2116; 2173; 2236; 2434; 2446; 2506; 2518; 2750; 2795; 2838; 2880; 2902; 2930; 2977; 3039; 3061; 3151; 3218; 3241; 3285; 3380; 3399; 3424; 3573; 3674; 3717; 3774; 3864; 3967; 3994; 4012; 4248; 4285; 4438; 4464; 4604; 4622; 4657; 4738; 4791
Lsp1109I	GCAGCNNNNNNNN!	10	362; 581; 816; 1318; 1701; 2986; 3028; 3549; 4002; 4502
Lsp1109I	!NNNNNNNNNNNNNGCTGC	9	98; 395; 710; 2195; 2860; 3044; 3137; 4203; 4409
LweI	GCATCNNNNNN!	9	317; 941; 956; 1729; 2492; 2564; 3212; 3276; 3551
LweI	!NNNNNNNNNNNGATGC	6	663; 1158; 2871; 3126; 3342; 4734
MabI	A!CCWGGT	1	2502
MaeI	C!TAG	10	115; 1220; 1463; 1568; 1762; 2180; 2736; 3751; 4085; 4338
MaeII	A!CGT	16	210; 275; 338; 542; 629; 842; 1317; 1322; 1973; 1985; 2028; 2138; 3029; 3216; 3997; 4130
MaeIII	!GTNAC	16	40; 232; 498; 747; 1112; 1318; 1535; 1701; 2202; 2214; 3033; 3339; 4029; 4295; 4411; 4474
MaiI	GA!TC	26	134; 185; 328; 476; 514; 706; 1007; 1156; 1375; 1572; 2752; 2756; 2775; 3086; 3164; 3245; 3254; 3332; 3708; 3724; 4083; 4095; 4173; 4181; 4192; 4267
MaqI	CRTTGACNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN!	1	1215
MaqI	!NNNNNNNNNNNNNNNNNNNNNGTCAAYG	0	
MauBI	CG!CGCGCG	0	
MbiI	CCG!CTC	2	2337; 3526
MbiI	GAG!CGG	2	2173; 3580
MboI	!GATC	26	132; 183; 326; 474; 512; 704; 1005; 1154; 1373; 1570; 2750; 2754; 2773; 3084; 3162; 3243; 3252; 3330; 3706; 3722; 4081; 4093; 4171; 4179; 4190; 4265
MboII	GAAGANNNNNNNN!	10	312; 1030; 1258; 1369; 1429; 2169; 2397; 3274; 3484; 4103
MboII	!NNNNNNNTCTTC	6	807; 852; 3564; 3731; 3931; 4174
McaTI	GCGC!GC	0	
MfeI	C!AATTG	1	1663
MfiI	R!GATCY	10	132; 183; 326; 3084; 3330; 3722; 4081; 4093; 4179; 4190
MhiI	GDGCH!C	14	143; 180; 265; 605; 734; 983; 2104; 2859; 2952; 3026; 3216; 3278; 3988; 4521
MisI	TGG!CCA	1	2995
MluI	A!CGCGT	1	1000
MluNI	TGG!CCA	1	2995
MlyI	GAGTCNNNNN!	3	1280; 1965; 2397
MlyI	!NNNNNGACTC	5	121; 1453; 1972; 3578; 4455
Mly113I	GG!CGCC	1	2913
MmeI	TCCRACNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN!	1	2006
MmeI	!NNNNNNNNNNNNNNNNNNNNNGTYGGA	2	4438; 4622
MnlI	CCTCNNNNNNN!	9	754; 766; 1632; 2696; 3514; 3720; 4034; 4404; 4728
MnlI	!NNNNNNNGAGG	20	336; 573; 654; 891; 903; 954; 1103; 1254; 1592; 2057; 2388; 2666; 2709; 2724; 2764; 2828; 2964; 3321; 3751; 4654
Mph1103I	ATGCA!T	3	2485; 2557; 4888
MreI	CG!CCGGCG	0	
MroI	T!CCGGA	0	
MroNI	G!CCGGC	3	2130; 3413; 3696
MroXI	GAANN!NNTTC	1	775
MscI	TGG!CCA	1	2995
MseI	T!TAA	14	1614; 1675; 1796; 1817; 1828; 1840; 1851; 1868; 1966; 2237; 4056; 4070; 4075; 4127
MslI	CAYNN!NNRTG	4	595; 745; 922; 3350
MspI	C!CGG	24	124; 180; 190; 509; 566; 593; 656; 716; 2131; 2818; 2895; 2917; 2945; 3076; 3166; 3233; 3414; 3689; 3697; 3789; 4263; 4453; 4479; 4626
Msp20I	TGG!CCA	1	2995
MspA1I	CMG!CKG	6	174; 1011; 2411; 3019; 4248; 4493
MspCI	C!TTAAG	1	1795

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
MspJI	CNNRNNNNNNNNNN!	253	24; 47; 71; 101; 120; 136; 150; 163; 185; 202; 221; 242; 255; 271; 297; 310; 324; 346; 366; 387; 400; 415; 428; 441; 459; 472; 490; 510; 532; 555; 578; 591; 605; 621; 642; 663; 678; 692; 708; 728; 741; 757; 780; 794; 808; 831; 844; 858; 879; 897; 921; 934; 948; 969; 987; 1000; 1013; 1028; 1043; 1065; 1095; 1108; 1129; 1145; 1159; 1184; 1210; 1232; 1250; 1270; 1293; 1322; 1338; 1360; 1389; 1413; 1437; 1454; 1468; 1481; 1496; 1523; 1541; 1560; 1580; 1596; 1620; 1637; 1650; 1691; 1705; 1718; 1736; 1774; 1789; 1807; 1848; 1872; 1892; 1910; 1931; 1954; 1986; 2001; 2023; 2041; 2054; 2075; 2092; 2105; 2118; 2134; 2147; 2177; 2192; 2217; 2235; 2248; 2263; 2287; 2301; 2325; 2350; 2366; 2404; 2420; 2459; 2473; 2487; 2515; 2531; 2545; 2559; 2588; 2601; 2622; 2631; 2653; 2683; 2699; 2717; 2747; 2770; 2794; 2818; 2837; 2865; 2891; 2907; 2920; 2943; 2957; 2977; 2990; 3004; 3023; 3037; 3050; 3066; 3081; 3094; 3110; 3125; 3141; 3166; 3185; 3201; 3214; 3227; 3245; 3259; 3273; 3289; 3311; 3327; 3346; 3368; 3384; 3407; 3426; 3440; 3456; 3470; 3490; 3506; 3519; 3541; 3574; 3588; 3608; 3621; 3635; 3689; 3702; 3725; 3738; 3757; 3774; 3801; 3837; 3870; 3889; 3914; 3935; 3962; 3975; 3992; 4006; 4021; 4037; 4097; 4122; 4138; 4160; 4173; 4187; 4218; 4232; 4257; 4275; 4290; 4303; 4322; 4335; 4350; 4379; 4398; 4416; 4441; 4456; 4475; 4491; 4510; 4528; 4544; 4558; 4577; 4604; 4627; 4649; 4668; 4683; 4696; 4713; 4733; 4760; 4773; 4792; 4817; 4840; 4854; 4867; 4884
MspJI	!NNNNNNNNNNNNYNG	205	16; 35; 53; 80; 101; 122; 142; 159; 176; 195; 216; 237; 254; 271; 298; 315; 340; 361; 378; 401; 424; 451; 472; 495; 517; 552; 579; 596; 628; 646; 668; 693; 713; 731; 749; 768; 794; 814; 832; 853; 871; 893; 922; 943; 961; 985; 1024; 1043; 1082; 1103; 1133; 1184; 1206; 1242; 1262; 1287; 1307; 1362; 1391; 1409; 1442; 1464; 1484; 1505; 1529; 1550; 1579; 1623; 1665; 1748; 1783; 1810; 1833; 1862; 1906; 1928; 1960; 1996; 2013; 2034; 2071; 2091; 2108; 2125; 2160; 2178; 2196; 2213; 2237; 2259; 2286; 2314; 2340; 2378; 2399; 2416; 2434; 2457; 2478; 2506; 2529; 2550; 2568; 2589; 2606; 2629; 2653; 2673; 2691; 2713; 2744; 2766; 2792; 2811; 2828; 2856; 2875; 2894; 2912; 2930; 2951; 2973; 2997; 3030; 3050; 3068; 3089; 3115; 3142; 3159; 3176; 3193; 3219; 3241; 3263; 3281; 3301; 3320; 3342; 3380; 3400; 3424; 3444; 3464; 3491; 3515; 3548; 3567; 3595; 3617; 3646; 3674; 3699; 3718; 3737; 3758; 3775; 3792; 3823; 3850; 3870; 3893; 3913; 3950; 3967; 3986; 4012; 4032; 4071; 4098; 4117; 4135; 4172; 4190; 4231; 4249; 4275; 4292; 4324; 4353; 4381; 4402; 4425; 4444; 4465; 4483; 4500; 4518; 4544; 4565; 4585; 4605; 4623; 4644; 4670; 4687; 4706; 4725; 4754; 4773; 4791; 4810; 4828; 4846; 4869
MspR9I	CC!NGG	22	180; 181; 510; 594; 610; 735; 847; 922; 976; 2449; 2504; 2521; 2917; 3077; 3300; 3690; 3879; 3982; 4454; 4672; 4685; 4806
MssI	GTTT!AAAC	0	
MunI	C!AATTG	1	1663
MvaI	CC!WGG	14	610; 735; 847; 922; 976; 2449; 2504; 2521; 3300; 3879; 3982; 4672; 4685; 4806
Mva1269I	GAATGCN!	1	1664
Mva1269I	G!CATTC	2	1264; 1757
MvnI	CG!CG	18	174; 473; 893; 1002; 1457; 1837; 2213; 2233; 2257; 2288; 2979; 3280; 3718; 3802; 3865; 3934; 4207; 4788
MvrI	CGAT!CG	0	
MwoI	GCNNNNN!NNGC	27	117; 244; 569; 656; 716; 729; 773; 1008; 2140; 2170; 2197; 2239; 2480; 2552; 2603; 2682; 2904; 2988; 3011; 3150; 3273; 3356; 3623; 3810; 4014; 4213; 4785
NaeI	GCC!GGC	3	2132; 3415; 3698
NarI	GG!CGCC	1	2913
NciI	CC!SGG	8	180; 181; 510; 594; 2917; 3077; 3690; 4454
NcoI	C!CATGG	2	2642; 3345
NdeI	CA!TATG	0	
NdeII	!GATC	26	132; 183; 326; 474; 512; 704; 1005; 1154; 1373; 1570; 2750; 2754; 2773; 3084; 3162; 3243; 3252; 3330; 3706; 3722; 4081; 4093; 4171; 4179; 4190; 4265
NgoAVIII	GACNNNNNTGANNNNNNNNNNNN!	0	
NgoAVIII	!NNNNNNNNNNNTCANNNNNGTC	0	
NgoAVIII	TCANNNNNGTCNNNNNNNNNNNN!	0	

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
NgoAVIII	!NNNNNNNNNNNGACNNNNNTGA	0	
NgoMIV	G!CCGGC	3	2130; 3413; 3696
NheI	G!CTAGC	1	114
NlaIII	CATG!	21	204; 288; 483; 528; 801; 831; 1110; 1329; 2343; 2483; 2555; 2646; 2787; 3132; 3318; 3349; 3375; 3731; 4115; 4835; 4886
NlaIV	GGN!NCC	22	170; 178; 185; 402; 564; 602; 1077; 1185; 1468; 2068; 2089; 2101; 2292; 2453; 2525; 2914; 2949; 3797; 3876; 3921; 4764; 4803
NlaCI	CATCACNNNNNNNNNNNNNNNNNN!	5	230; 1104; 1745; 2060; 3652
NlaCI	!NNNNNNNNNNNNNNNNNGTGATG	1	4724
Nli3877I	CYCGR!G	3	140; 183; 272
NmeAIII	GCCGAGNNNNNNNNNNNNNNNNNN!	3	921; 2702; 3138
NmeAIII	!NNNNNNNNNNNNNNNNNNCTCGGC	3	500; 737; 2667
NmeDI	RCCGGYNNNNNN!	7	201; 577; 727; 2142; 3244; 3425; 3708
NmeDI	!NNNNNNNNNNNNRCCGGY	7	176; 552; 702; 2117; 3219; 3400; 3683
NmuCI	!GTSAC	10	40; 232; 498; 747; 1112; 1318; 1535; 2202; 3033; 3339
NotI	GC!GGCCGC	1	1452
NruI	TCG!CGA	0	
NsbI	TGC!GCA	1	3015
NsiI	ATGCA!T	3	2485; 2557; 4888
NspI	RCATG!Y	4	2483; 2555; 3318; 4835
NspV	TT!CGAA	2	150; 3595
OliI	CACNN!NNGTG	3	595; 745; 922
PabI	GTA!C	7	99; 171; 539; 995; 1428; 1483; 3220
PacI	TTAAT!TAA	0	
PaeI	GCATG!C	3	2483; 2555; 3318
PaeR7I	C!TCGAG	2	136; 268
PagI	T!CATGA	4	1106; 1325; 2339; 4111
PalAI	GG!CGCGCC	0	
PasI	CC!CWGGG	2	3878; 3981
PauI	G!CGCGC	0	
PceI	AGG!CCT	1	2734
PciI	A!CATGT	1	4831
PciSI	GCTCTCN!	0	
PciSI	!NNNNGAAGAGC	2	3257; 3467
PcsI	WCGNNNN!NNNCGW	8	470; 527; 3207; 3284; 3527; 3601; 3994; 4512
PctI	GAATGCN!	1	1664
PctI	G!CATTC	2	1264; 1757
PdiI	GCC!GGC	3	2132; 3415; 3698
PdmI	GAANN!NNTTC	1	775
PfeI	G!AWTC	5	3398; 3532; 3642; 3679; 4857
Pfi23II	C!GTACG	0	
PfifI	GACN!NNGTC	1	3031
PfIMI	CCANNNN!NTGG	0	
PfoI	T!CCNGGA	2	845; 3688
PhoI	GG!CC	25	178; 289; 316; 401; 638; 738; 767; 1454; 1879; 2021; 2676; 2682; 2691; 2734; 2821; 2995; 3386; 3413; 3922; 3979; 4012; 4357; 4791; 4809; 4820
PinAI	A!CCGGT	1	189
PlaDI	CATCAGNNNNNNNNNNNNNNNNNN!	1	3294
PlaDI	!NNNNNNNNNNNNNNNNNNCTGATG	3	1152; 2859; 3114
PleI	GAGTCNNNN!	3	1279; 1964; 2396
PleI	!NNNNNGACTC	5	121; 1453; 1972; 3578; 4455
Ple19I	CGAT!CG	0	
PmaCI	CAC!GTG	0	
PmeI	GTTT!AAAC	0	
PmII	CAC!GTG	0	
PpiI	GAACNNNNNCTCNNNNNNNNNNNN!	1	1995
PpiI	!NNNNNNNNGAGNNNNNGTTC	3	571; 889; 4125
PpiI	GAGNNNNNGTTCNNNNNNNNNNNN!	3	603; 921; 4157
PpiI	!NNNNNNNGAACNNNNNNCTC	1	1963
PpsI	GAGTCNNNN!	3	1279; 1964; 2396
PpsI	!NNNNNGACTC	5	121; 1453; 1972; 3578; 4455
Ppu10I	A!TGCAT	3	2481; 2553; 4884
Ppu21I	YAC!GTR	2	2029; 3217

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
PpuMI	RG!GWCCY	1	1466
Psci	A!CATGT	1	4831
PshAI	GACNN!NNGTC	0	
PshBI	AT!TAAT	0	
PsiI	TTA!TAA	4	83; 1497; 1696; 1901
Psp03I	GGWC!C	4	486; 1469; 3432; 3877
Psp5II	RG!GWCCY	1	1466
Psp6I	!CCWGG	14	608; 733; 845; 920; 974; 2447; 2502; 2519; 3298; 3877; 3980; 4670; 4683; 4804
Psp1406I	AA!CGTT	0	
Psp124BI	GAGCT!C	2	143; 265
PspCI	CAC!GTG	0	
PspEI	G!GTNACC	0	
PspGI	!CCWGG	14	608; 733; 845; 920; 974; 2447; 2502; 2519; 3298; 3877; 3980; 4670; 4683; 4804
PspLI	C!GTACG	0	
PspN4I	GGN!NCC	22	170; 178; 185; 402; 564; 602; 1077; 1185; 1468; 2068; 2089; 2101; 2292; 2453; 2525; 2914; 2949; 3797; 3876; 3921; 4764; 4803
PspOMI	G!GGCCC	1	176
PspOMII	CGCCARNNNNNNNNNNNNNNNNNNNNN!	2	2643; 3642
PspOMII	!NNNNNNNNNNNNNNNNNNNYTGGGCG	1	3045
PspPI	G!GNCC	12	176; 177; 400; 483; 737; 1466; 2020; 3429; 3874; 3920; 3978; 4011
PspPPI	RG!GWCCY	1	1466
PspPRI	CCYAGNNNNNNNNNNNNNNNN!	3	2466; 2538; 4044
PspPRI	!NNNNNNNNNNNNNCTGRGG	3	962; 2379; 3574
PspXI	VC!TCGAGB	0	
PsrI	GAACNNNNNTACNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGTANNNNNNGTTC	0	
PsrI	GTANNNNNGTTCNNNNNNNNNNNN!	0	
PsrI	!NNNNNNNGAACNNNNNNNTAC	0	
PssI	RGGNC!CY	2	1469; 4014
PstI	CTGCA!G	1	161
PstNI	CAGNN!CTG	3	1138; 4014; 4422
PsuI	R!GATCY	10	132; 183; 326; 3084; 3330; 3722; 4081; 4093; 4179; 4190
PsyI	GACN!NNGTC	1	3031
PteI	G!CGCGC	0	
PvuI	CGAT!CG	0	
PvuII	CAG!CTG	3	1011; 2411; 3019
RcaI	T!CATGA	4	1106; 1325; 2339; 4111
RceI	CATCGACNNNNNNNNNNNNNNNNNN!	1	3428
RceI	!NNNNNNNNNNNNNNNNNGTCCGATG	0	
RgaI	GCGAT!CGC	0	
RigI	GGCCGG!CC	0	
RleAI	CCCACANNNNNNNNNNNNNN!	1	1642
RleAI	!NNNNNNNNNTGTGGG	0	
RpaBI	CCCGCAGNNNNNNNNNNNNNNNNNN!	0	
RpaBI	!NNNNNNNNNNNNNNNNNNCTGCGGG	0	
RpaB5I	CGRGGACNNNNNNNNNNNNNNNNNN!	1	368
RpaB5I	!NNNNNNNNNNNNNNNNNGTCCYCG	0	
RruI	TCG!CGA	0	
RsaI	GT!AC	7	98; 170; 538; 994; 1427; 1482; 3219
RsaNI	G!TAC	7	97; 169; 537; 993; 1426; 1481; 3218
RseI	CAYNN!NNRTG	4	595; 745; 922; 3350
RsrII	CG!GWCCG	1	3429
Rsr2I	CG!GWCCG	1	3429
SacI	GAGCT!C	2	143; 265
SacII	CCGC!GG	1	175
SalI	G!TCGAC	1	162
SapI	GCTCTTCN!	0	
SapI	!NNNNGAAGAGC	2	3257; 3467
SaqAI	T!TAA	14	1614; 1675; 1796; 1817; 1828; 1840; 1851; 1868; 1966; 2237; 4056; 4070; 4075; 4127



Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SatI	GC!NGC	38	112; 351; 358; 409; 412; 506; 570; 724; 805; 1307; 1455; 1690; 2209; 2231; 2245; 2683; 2822; 2874; 2885; 2975; 2980; 3017; 3058; 3145; 3151; 3387; 3483; 3524; 3538; 3652; 3991; 4006; 4217; 4423; 4426; 4491; 4634; 4789
Sau96I	G!GNCC	12	176; 177; 400; 483; 737; 1466; 2020; 3429; 3874; 3920; 3978; 4011
Sau3AI	!GATC	26	132; 183; 326; 474; 512; 704; 1005; 1154; 1373; 1570; 2750; 2754; 2773; 3084; 3162; 3243; 3252; 3330; 3706; 3722; 4081; 4093; 4171; 4179; 4190; 4265
SbfI	CCTGCA!GG	0	
ScaI	AGT!ACT	0	
SchI	GAGTCNNNNN!	3	1280; 1965; 2397
SchI	!NNNNNGACTC	5	121; 1453; 1972; 3578; 4455
SciI	CTC!GAG	2	138; 270
ScrFI	CC!NGG	22	180; 181; 510; 594; 610; 735; 847; 922; 976; 2449; 2504; 2521; 2917; 3077; 3300; 3690; 3879; 3982; 4454; 4672; 4685; 4806
SdaI	CCTGCA!GG	0	
SdeAI	CAGRAGNNNNNNNNNNNNNNNNNNNNNN!	7	324; 873; 1159; 2491; 2563; 2732; 4674
SdeAI	!NNNNNNNNNNNNNNNNNNNNCTYCTG	2	3068; 3553
SdeOSI	GACNNNNRTGANNNNNNNNNNNNN!	0	
SdeOSI	!NNNNNNNNNNNTCAYNNNNNGTC	0	
SdeOSI	TCAYNNNNNGTCNNNNNNNNNNNNNN!	0	
SdeOSI	!NNNNNNNNNNNGACNNNNRTGA	0	
SduI	GDGCH!C	14	143; 180; 265; 605; 734; 983; 2104; 2859; 2952; 3026; 3216; 3278; 3988; 4521
SelI	!CGCG	18	172; 471; 891; 1000; 1455; 1835; 2211; 2231; 2255; 2286; 2977; 3278; 3716; 3800; 3863; 3932; 4205; 4786
SetI	ASST!	73	47; 143; 149; 213; 234; 249; 255; 265; 278; 341; 362; 431; 436; 536; 545; 587; 620; 632; 682; 692; 704; 725; 845; 902; 941; 989; 1013; 1114; 1140; 1320; 1325; 1475; 1537; 1603; 1624; 1633; 1645; 1694; 1861; 1976; 1988; 2031; 2068; 2118; 2141; 2265; 2413; 2508; 2701; 2814; 2942; 3021; 3032; 3104; 3175; 3219; 3479; 3625; 3669; 4000; 4031; 4090; 4133; 4276; 4297; 4396; 4533; 4548; 4567; 4579; 4623; 4669; 4720
SexAI	A!CCWGGT	1	2502
SfaAI	GCGAT!CGC	0	
SfaNI	GCATCNNNNN!	9	317; 941; 956; 1729; 2492; 2564; 3212; 3276; 3551
SfaNI	!NNNNNNNNNGATGC	6	663; 1158; 2871; 3126; 3342; 4734
SfcI	C!TRYAG	5	157; 248; 2248; 4375; 4566
SfiI	GGCCNNNN!NGGCC	1	2688
SfoI	GGC!GCC	1	2914
Sfr274I	C!TCGAG	2	136; 268
Sfr303I	CCGC!GG	1	175
SfuI	TT!CGAA	2	150; 3595
SgeI	CNNGNNNNNNNNN!	195	6; 57; 120; 136; 150; 185; 202; 221; 242; 280; 297; 324; 354; 373; 387; 415; 441; 459; 477; 492; 510; 532; 555; 578; 591; 605; 621; 654; 668; 699; 728; 741; 757; 780; 794; 810; 831; 844; 858; 879; 897; 921; 934; 948; 969; 987; 1000; 1013; 1050; 1108; 1129; 1159; 1210; 1232; 1270; 1293; 1333; 1417; 1468; 1482; 1545; 1580; 1620; 1649; 1691; 1774; 1848; 1932; 1954; 1986; 2023; 2041; 2060; 2075; 2117; 2134; 2151; 2186; 2200; 2217; 2239; 2263; 2287; 2352; 2366; 2404; 2420; 2460; 2473; 2492; 2515; 2532; 2545; 2564; 2594; 2615; 2632; 2655; 2690; 2717; 2748; 2770; 2796; 2818; 2837; 2865; 2901; 2920; 2943; 2957; 2977; 2990; 3004; 3023; 3037; 3056; 3088; 3102; 3115; 3141; 3172; 3185; 3202; 3219; 3233; 3250; 3268; 3283; 3311; 3327; 3346; 3368; 3384; 3407; 3426; 3451; 3470; 3490; 3517; 3541; 3574; 3593; 3621; 3635; 3701; 3725; 3740; 3763; 3784; 3801; 3849; 3876; 3890; 3919; 3943; 3976; 3993; 4013; 4026; 4039; 4097; 4124; 4143; 4173; 4198; 4218; 4232; 4257; 4275; 4312; 4350; 4379; 4407; 4421; 4441; 4456; 4477; 4491; 4510; 4528; 4544; 4584; 4604; 4631; 4649; 4670; 4683; 4696; 4713; 4737; 4760; 4792; 4817; 4844; 4866

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
SgeI	!NNNNNNNNNNNNNCNNG	170	31; 94; 122; 159; 176; 195; 216; 254; 271; 298; 328; 347; 389; 415; 433; 451; 472; 495; 517; 552; 579; 596; 628; 646; 673; 702; 720; 743; 768; 794; 814; 832; 853; 871; 895; 922; 943; 961; 985; 1024; 1082; 1103; 1133; 1184; 1206; 1244; 1267; 1307; 1391; 1442; 1464; 1519; 1554; 1594; 1623; 1665; 1748; 1822; 1906; 1928; 1960; 1997; 2015; 2034; 2091; 2108; 2125; 2160; 2178; 2198; 2218; 2237; 2261; 2326; 2378; 2434; 2466; 2489; 2506; 2538; 2568; 2589; 2606; 2629; 2664; 2691; 2722; 2744; 2770; 2792; 2811; 2839; 2875; 2894; 2917; 2938; 2956; 2973; 2997; 3030; 3062; 3089; 3115; 3146; 3176; 3193; 3219; 3242; 3263; 3285; 3305; 3325; 3342; 3381; 3400; 3425; 3444; 3464; 3491; 3515; 3548; 3567; 3595; 3617; 3675; 3699; 3718; 3737; 3758; 3775; 3823; 3850; 3870; 3893; 3917; 3950; 3967; 3987; 4013; 4071; 4098; 4117; 4147; 4172; 4192; 4231; 4249; 4286; 4324; 4353; 4381; 4402; 4430; 4451; 4484; 4502; 4558; 4578; 4605; 4623; 4644; 4670; 4687; 4711; 4734; 4766; 4791; 4818; 4840; 4869
Sgfl	GCGAT!CGC	0	
SgrAI	CR!CCGGYG	0	
SgrBI	CCGC!GG	1	175
SgrDI	CG!TCGACG	0	
SgsI	GG!CGCGCC	0	
SimI	GG!GTC	4	1120; 2060; 3847; 4640
SimI	!GACCC	7	456; 692; 887; 1466; 3341; 3909; 4157
SinI	G!GWCC	4	483; 1466; 3429; 3874
Slal	C!TCGAG	2	136; 268
SmaI	CCC!GGG	1	181
SmiI	ATTT!AAAT	0	
SmiMI	CAYNN!NNRTG	4	595; 745; 922; 3350
SmlI	C!TYRAG	8	136; 142; 268; 1795; 3304; 4186; 4463; 4725
SmoI	C!TYRAG	8	136; 142; 268; 1795; 3304; 4186; 4463; 4725
SmuI	CCCGCNNNN!	7	790; 898; 2235; 2590; 2611; 3807; 3939
SmuI	!NNNNNNGCGGG	6	167; 2166; 3036; 3573; 3711; 3858
SnaBI	TAC!GTA	0	
SpeI	A!CTAGT	0	
SphI	GCATG!C	3	2483; 2555; 3318
Srfl	GCCC!GGGC	0	
Sse9I	!AATT	16	60; 152; 1033; 1141; 1201; 1420; 1516; 1663; 1727; 1805; 1831; 1842; 2489; 2561; 2653; 4071
Sse8387I	CCTGCA!GG	0	
Sse8647I	AG!GWCCT	0	
SseBI	AGG!CCT	1	2734
SsiI	C!CGC	33	172; 330; 503; 506; 783; 824; 891; 930; 1455; 2228; 2231; 2245; 2335; 2583; 2595; 2604; 2616; 2626; 2637; 2683; 2822; 2885; 3387; 3432; 3498; 3524; 3649; 3652; 3800; 3932; 4239; 4383; 4879
SsiI	G!CGG	24	174; 551; 557; 1451; 2173; 2200; 2288; 2398; 2979; 3043; 3144; 3147; 3427; 3482; 3580; 3718; 3865; 4005; 4248; 4493; 4614; 4633; 4760; 4788
SspI	AAT!ATT	2	1821; 2374
SspDI	G!GCGCC	1	2912
SspD5I	GGTGANNNNNNN!	4	912; 936; 3984; 4100
SspD5I	!NNNNNNNNTCACC	3	581; 2029; 3090
SstI	GAGCT!C	2	143; 265
SstII	CCGC!GG	1	175
SstE37I	CGAAGACNNNNNNNNNNNNNNNNNNNN!	0	
SstE37I	!NNNNNNNNNNNNNNNNNNNGTCTTCG	0	
Sth132I	CCCGNNNN!	21	186; 410; 422; 734; 789; 797; 839; 897; 1205; 2112; 2234; 2589; 2610; 2923; 3326; 3465; 3536; 3806; 3938; 4168; 4606
Sth132I	!NNNNNNNNCGGG	18	166; 501; 585; 2113; 2165; 2266; 2993; 3035; 3068; 3572; 3681; 3710; 3857; 3961; 3992; 4445; 4489; 4697
Sth302II	CC!GG	24	125; 181; 191; 510; 567; 594; 657; 717; 2132; 2819; 2896; 2918; 2946; 3077; 3167; 3234; 3415; 3690; 3698; 3790; 4264; 4454; 4480; 4627
StrI	C!TCGAG	2	136; 268
StsI	GGATGNNNNNNNNN!	7	560; 1181; 1298; 2781; 3238; 3263; 3717
StsI	!NNNNNNNNNNNNNNNNCATCC	3	591; 957; 2585
StuI	AGG!CCT	1	2734

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
StyI	C!CWWGG	4	2642; 2735; 3345; 3750
StyD4I	!CCNGG	22	178; 179; 508; 592; 608; 733; 845; 920; 974; 2447; 2502; 2519; 2915; 3075; 3298; 3688; 3877; 3980; 4452; 4670; 4683; 4804
SwaI	ATTT!AAAT	0	
TaaI	ACN!GT	10	168; 1104; 2004; 3293; 3409; 3517; 3840; 4331; 4801; 4872
TaiI	ACGT!	16	213; 278; 341; 545; 632; 845; 1320; 1325; 1976; 1988; 2031; 2141; 3032; 3219; 4000; 4133
TaqI	T!CGA	19	137; 150; 163; 269; 341; 614; 908; 935; 2062; 2753; 3026; 3182; 3206; 3242; 3404; 3595; 3640; 3895; 4733
TaqII	GACCGANNNNNNNNNNN!	4	1030; 1933; 2950; 3618
TaqII	!NNNNNNNNNTCGGTC	1	3862
TaqII	CACCCANNNNNNNNNNN!	0	
TaqII	!NNNNNNNNNTGGGTG	2	2817; 3409
TasI	!AATT	16	60; 152; 1033; 1141; 1201; 1420; 1516; 1663; 1727; 1805; 1831; 1842; 2489; 2561; 2653; 4071
TatI	W!GTACW	4	96; 536; 992; 1480
TauI	GCSG!C	17	508; 1457; 2233; 2247; 2685; 2824; 2887; 2982; 3147; 3150; 3389; 3485; 3526; 3654; 4008; 4636; 4791
TfiI	G!AWTC	5	3398; 3532; 3642; 3679; 4857
TliI	C!TCGAG	2	136; 268
TruII	T!TAA	14	1614; 1675; 1796; 1817; 1828; 1840; 1851; 1868; 1966; 2237; 4056; 4070; 4075; 4127
Tru9I	T!TAA	14	1614; 1675; 1796; 1817; 1828; 1840; 1851; 1868; 1966; 2237; 4056; 4070; 4075; 4127
TscAI	CASTGNN!	7	1121; 1308; 1759; 3042; 4152; 4423; 4436
TseI	G!CWGC	22	111; 350; 357; 408; 411; 569; 723; 804; 1306; 1689; 2208; 2873; 2974; 3016; 3057; 3150; 3537; 3990; 4216; 4422; 4425; 4490
TsoI	TARCCANNNNNNNNNNN!	2	1885; 2232
TsoI	!NNNNNNNNNTGGYTA	4	1207; 1283; 1690; 3442
Tsp45I	!GTSAC	10	40; 232; 498; 747; 1112; 1318; 1535; 2202; 3033; 3339
Tsp509I	!AATT	16	60; 152; 1033; 1141; 1201; 1420; 1516; 1663; 1727; 1805; 1831; 1842; 2489; 2561; 2653; 4071
TspDTI	ATGAANNNNNNNNNNN!	8	814; 1175; 1243; 1370; 1430; 1671; 2972; 3676
TspDTI	!NNNNNNNNNTTCAT	3	3390; 3846; 4053
TspEI	!AATT	16	60; 152; 1033; 1141; 1201; 1420; 1516; 1663; 1727; 1805; 1831; 1842; 2489; 2561; 2653; 4071
TspGWI	ACGGANNNNNNNNNNN!	2	1415; 3788
TspGWI	!NNNNNNNNNTCCGT	2	432; 1246
TspMI	C!CCGGG	1	179
TspRI	CASTGNN!	7	1121; 1308; 1759; 3042; 4152; 4423; 4436
TstI	CACNNNNNTCCNNNNNNNNNN!	0	
TstI	!NNNNNNNGGANNNNNNGTG	0	
TstI	GGANNNNNNGTGNNNNNNNNNNN!	0	
TstI	!NNNNNNNCCACNNNNNTCC	0	
Tth111I	GACN!NNGTC	1	3031
Tth111II	CAARCANNNNNNNNNNN!	2	310; 4240
Tth111II	!NNNNNNNNNTGYTTG	3	3348; 4208; 4247
UnbI	!GGNCC	12	175; 176; 399; 482; 736; 1465; 2019; 3428; 3873; 3919; 3977; 4010
Van9II	CCANNNN!NTGG	0	
Vha464I	C!TTAAG	1	1795
VneI	G!TGCAC	1	4517
VpaK11AI	!GGWCC	4	482; 1465; 3428; 3873
VpaK11BI	G!GWCC	4	483; 1466; 3429; 3874
VspI	AT!TAAT	0	
XagI	CCTNN!NNNAGG	0	
XapI	R!AATTY	7	152; 1033; 1201; 1420; 1727; 1831; 1842
XbaI	T!CTAGA	0	
XceI	RCATG!Y	4	2483; 2555; 3318; 4835
XcmI	CCANNNNN!NNNTGG	0	
XhoI	C!TCGAG	2	136; 268
XhoII	R!GATCY	10	132; 183; 326; 3084; 3330; 3722; 4081; 4093; 4179; 4190
XmaI	C!CCGGG	1	179
XmaJI	C!CTAGG	2	2735; 3750

Enzyme name	Sequence	Count	Cutting Position (the base to the left of the cut site)
XmiI	GT!MKAC	1	163
XmnI	GAANN!NNTTC	1	775
XspI	C!TAG	10	115; 1220; 1463; 1568; 1762; 2180; 2736; 3751; 4085; 4338
ZraI	GAC!GTC	0	
ZrmI	AGT!ACT	0	
Zsp2I	ATGCA!T	3	2485; 2557; 4888