

pHcRed-Tandem-N3 vector

Table of restriction sites

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|------------------------|-------|---|
| AanI | TTA!TAA | 2 | 2208; 2413 |
| AarI | CACCTGCNNNN! | 0 | |
| AarI | !NNNNNNNNGCAGGTG | 0 | |
| AasI | GACNNNN!NNGTC | 3 | 2496; 3452; 5241 |
| AatI | AGG!CCT | 1 | 3246 |
| AatII | GACGT!C | 4 | 125; 178; 261; 447 |
| AbsI | CC!TCGAGG | 0 | |
| AccI | GT!MKAC | 1 | 640 |
| AccII | CG!CG | 18 | 60; 651; 1234; 1930; 2074; 2349; 2725; 2745; 2769; 2800; 3491; 3792; 4230; 4314; 4377; 4446; 4719; 5300 |
| AccIII | T!CCGGA | 1 | 663 |
| Acc16I | TGC!GCA | 3 | 711; 1407; 3527 |
| Acc36I | ACCTGCNNNN! | 4 | 1354; 2050; 3693; 4143 |
| Acc36I | !NNNNNNNNGCAGGT | 1 | 3312 |
| Acc65I | G!GTACC | 0 | |
| AccB1I | G!GYRCC | 14 | 465; 732; 792; 825; 1050; 1183; 1428; 1488; 1521; 1746; 1879; 2578; 3424; 3459 |
| AccB7I | CCANNNN!NTGG | 0 | |
| AccBSI | CCG!CTC | 2 | 2849; 4038 |
| AccBSI | GAG!CGG | 6 | 688; 1093; 1384; 1789; 2685; 4092 |
| AceIII | CAGCTCNNNNNNN! | 1 | 2381 |
| AceIII | !NNNNNNNNGAGCTG | 3 | 552; 1299; 1995 |
| Acil | C!CGC | 39 | 58; 86; 98; 112; 279; 507; 589; 649; 901; 991; 1063; 1597; 1687; 1759; 2072; 2740; 2743; 2757; 2847; 3095; 3107; 3116; 3128; 3138; 3149; 3195; 3334; 3397; 3899; 3944; 4010; 4036; 4161; 4164; 4312; 4444; 4751; 4895; 5391 |
| Acil | G!CGG | 36 | 370; 403; 528; 651; 688; 979; 1093; 1096; 1147; 1286; 1384; 1675; 1789; 1792; 1843; 1982; 2685; 2712; 2800; 2910; 3491; 3555; 3656; 3659; 3939; 3994; 4092; 4230; 4377; 4517; 4760; 5005; 5126; 5145; 5272; 5300 |
| AcII | AA!CGTT | 0 | |
| AcIWI | GGATCNNNN! | 8 | 668; 3293; 3604; 3850; 4242; 4601; 4699; 4785 |
| AcIWI | !NNNNNGATCC | 8 | 580; 655; 902; 1598; 3669; 4213; 4600; 4697 |
| AcoI | Y!GGCCR | 8 | 743; 1148; 1439; 1844; 3331; 3505; 3896; 3923 |
| AcsI | R!AATTY | 4 | 629; 2239; 2343; 2354 |
| AcuI | CTGAAGNNNNNNNNNNNNNNN! | 6 | 717; 1188; 1413; 1884; 3571; 4003 |
| AcuI | !NNNNNNNNNNNNNNCTTCAG | 1 | 4801 |
| AcvI | CAC!GTG | 2 | 815; 1511 |
| AcyI | GR!CGYC | 9 | 122; 175; 258; 444; 826; 1522; 3425; 4127; 4206 |
| AdeI | CACNNN!GTG | 1 | 2541 |
| Afal | GT!AC | 19 | 219; 244; 299; 332; 383; 540; 723; 873; 1125; 1305; 1317; 1338; 1419; 1569; 1821; 2001; 2013; 2034; 3731 |
| Afel | AGC!GCT | 1 | 596 |
| AfiI | CCNNNNN!NNGG | 32 | 49; 650; 663; 698; 789; 1068; 1134; 1172; 1213; 1270; 1394; 1485; 1764; 1830; 1868; 1909; 1966; 2437; 2763; 3155; 3406; 3950; 4231; 4263; 4395; 4430; 4480; 4512; 4865; 5144; 5310; 5328 |
| AfII | C!TTAAG | 1 | 2307 |
| AfIII | A!CRYGT | 1 | 5343 |
| AgeI | A!CCGGT | 1 | 668 |
| AgsI | TTS!AA | 9 | 755; 923; 1451; 1619; 2836; 2880; 2890; 3303; 4879 |
| AhdI | GACNNN!NNGTC | 0 | |
| AhII | A!CTAGT | 0 | |
| AjiI | CAC!GTC | 0 | |
| AjiI | GAC!GTG | 0 | |
| AjnI | !CCWGG | 19 | 88; 281; 853; 948; 997; 1009; 1549; 1644; 1693; 1705; 2959; 3014; 3031; 3810; 4389; 4492; 5182; 5195; 5316 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|-----------------------------|-------|---|
| AjuI | GAANNNNNNNTTGGNNNNNNNNNNNN! | 0 | |
| AjuI | !NNNNNNCCAANNNNNNNTTC | 0 | |
| AjuI | CCAANNNNNNNTTCNNNNNNNNNNNN! | 0 | |
| AjuI | !NNNNNNNGAANNNNNNNTTGG | 0 | |
| AleI | CACNN!NNGTG | 3 | 681; 1116; 1812 |
| AlfI | GCANNNNNTGCGNNNNNNNNNNNN! | 2 | 2999; 3071 |
| AlfI | !NNNNNNNNNGCANNNNNNNTGC | 2 | 2965; 3037 |
| AloI | GAACNNNNNTCCNNNNNNNNNNNN! | 1 | 2507 |
| AloI | !NNNNNNNGGANNNNNNGTTC | 0 | |
| AloI | GGANNNNNGTTCNNNNNNNNNNNN! | 0 | |
| AloI | !NNNNNNNGAACNNNNNNNTCC | 1 | 2475 |
| AluI | AG!CT | 20 | 566; 618; 624; 931; 1210; 1313; 1627; 1906; 2009; 2204; 2371; 2628; 2923; 3211; 3531; 3989; 4786; 5043; 5089; 5179 |
| AluBI | AG!CT | 20 | 566; 618; 624; 931; 1210; 1313; 1627; 1906; 2009; 2204; 2371; 2628; 2923; 3211; 3531; 3989; 4786; 5043; 5089; 5179 |
| AlwI | GGATCNNNN! | 8 | 668; 3293; 3604; 3850; 4242; 4601; 4699; 4785 |
| AlwI | !NNNNNGATCC | 8 | 580; 655; 902; 1598; 3669; 4213; 4600; 4697 |
| Alw21I | GWGCW!C | 8 | 620; 895; 1048; 1591; 1744; 3538; 3728; 5033 |
| Alw26I | GTCTCN! | 1 | 434 |
| Alw26I | !NNNNNGAGAC | 4 | 2849; 3267; 4286; 4414 |
| Alw44I | G!TGCAC | 5 | 891; 1044; 1587; 1740; 5029 |
| AlwNI | CAGNNN!CTG | 4 | 1283; 1979; 4526; 4934 |
| Ama87I | C!YCGRG | 10 | 613; 656; 936; 1128; 1350; 1371; 1632; 1824; 2046; 2065 |
| Aor13HI | T!CCGGA | 1 | 663 |
| Aor51HI | AGC!GCT | 1 | 596 |
| ApaI | GGGCC!C | 1 | 657 |
| ApaBI | GCANNNNN!TGC | 3 | 2993; 3065; 4527 |
| ApaLI | G!TGCAC | 5 | 891; 1044; 1587; 1740; 5029 |
| ApeKI | G!CWGC | 19 | 865; 877; 1283; 1561; 1573; 1979; 2201; 2720; 3385; 3486; 3528; 3569; 3662; 4049; 4502; 4728; 4934; 4937; 5002 |
| ApoI | R!AATTY | 4 | 629; 2239; 2343; 2354 |
| ApyPI | ATCGACNNNNNNNNNNNNNNNNNN! | 1 | 3940 |
| ApyPI | !NNNNNNNNNNNNNNNNNGTCCGAT | 3 | 3734; 4387; 5225 |
| AquII | GCCGNACNNNNNNNNNNNNNNNNNN! | 1 | 3824 |
| AquII | !NNNNNNNNNNNNNNNNNGTNCGGC | 4 | 853; 1126; 1549; 1822 |
| AquIII | GAGGAGNNNNNNNNNNNNNNNNNN! | 1 | 3253 |
| AquIII | !NNNNNNNNNNNNNNNNNCTCCTC | 0 | |
| AquIV | GRGGAAGNNNNNNNNNNNNNNNNNN! | 0 | |
| AquIV | !NNNNNNNNNNNNNNNNNCTCCYC | 5 | 914; 1040; 1610; 1736; 3995 |
| ArsI | GACNNNNNTTYGNNNNNNNNNNNN! | 2 | 1322; 2018 |
| ArsI | !NNNNNCCRAANNNNNNGTC | 0 | |
| ArsI | CRAANNNNNNGTCNNNNNNNNNNNN! | 0 | |
| ArsI | !NNNNNNNGACNNNNNNNTTYG | 2 | 1290; 1986 |
| AscI | GG!CGCGCC | 0 | |
| AseI | AT!TAAT | 1 | 7 |
| Asi256I | G!ATC | 27 | 586; 610; 661; 908; 1028; 1190; 1366; 1604; 1724; 1886; 2083; 3263; 3267; 3286; 3597; 3675; 3756; 3765; 3843; 4219; 4235; 4594; 4606; 4684; 4692; 4703; 4778 |
| AsiGI | A!CCGGT | 1 | 668 |
| AsiSI | GCGAT!CGC | 0 | |
| AspI | GACN!NNGTC | 1 | 3543 |
| Asp700I | GAANN!NNTTC | 0 | |
| Asp718I | G!GTACC | 0 | |
| AspA2I | C!CTAGG | 2 | 3247; 4262 |
| AspEI | GACNNN!NNGTC | 0 | |
| AspLEI | GCG!C | 29 | 597; 712; 828; 1234; 1236; 1408; 1524; 1930; 1932; 2691; 2699; 2725; 2747; 2756; 2769; 2800; 3419; 3427; 3491; 3528; 3794; 4054; 4230; 4316; 4719; 4828; 5002; 5102; 5169 |
| AspS9I | G!GNCC | 20 | 83; 276; 654; 666; 857; 883; 1071; 1163; 1331; 1553; 1579; 1767; 1859; 2027; 2532; 3941; 4386; 4432; 4490; 4523 |
| AssI | AGT!ACT | 2 | 1305; 2001 |
| AsuII | TT!CGAA | 2 | 627; 4107 |
| AsuC2I | CC!SGG | 12 | 657; 658; 1249; 1334; 1372; 1373; 1945; 2030; 3429; 3589; 4202; 4966 |
| AsuHPI | GGTGANNNNNNNN! | 7 | 376; 695; 1049; 1391; 1745; 4496; 4612 |
| AsuHPI | !NNNNNNNTCACC | 6 | 938; 1253; 1634; 1949; 2542; 3603 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|--------------------------|-------|--|
| AsuNHI | G!CTAGC | 1 | 591 |
| AvaI | C!YCGRG | 10 | 613; 656; 936; 1128; 1350; 1371; 1632; 1824; 2046; 2065 |
| AvaII | G!GWCC | 5 | 666; 883; 1579; 3941; 4386 |
| AviII | TGC!GCA | 3 | 711; 1407; 3527 |
| AvrII | C!CTAGG | 2 | 3247; 4262 |
| AxyI | CC!TNAGG | 2 | 2905; 4537 |
| BaeI | ACNNNGTAYCNNNNNNNNNN! | 0 | |
| BaeI | !NNNNNNGRTACNNNNGT | 0 | |
| BaeI | GRTACNNNNGTNNNNNNNNNNNN! | 0 | |
| BaeI | !NNNNNNNNNACNNNNGTAYC | 0 | |
| BaeGI | GKGCMI!C | 10 | 657; 735; 895; 1048; 1431; 1591; 1744; 3371; 3464; 5033 |
| BalI | TGG!CCA | 1 | 3507 |
| BamHI | G!GATCC | 1 | 660 |
| BanI | G!GYRCC | 14 | 465; 732; 792; 825; 1050; 1183; 1428; 1488; 1521; 1746; 1879; 2578; 3424; 3459 |
| BanII | GRGCY!C | 7 | 620; 657; 1108; 1804; 2616; 3790; 4500 |
| BanIII | AT!CGAT | 1 | 3265 |
| BarI | GAAGNNNNNTACNNNNNNNNNN! | 2 | 1319; 2015 |
| BarI | !NNNNNNGTANNNNNNCTTC | 0 | |
| BarI | GTANNNNNNCTTCNNNNNNNNNN! | 0 | |
| BarI | !NNNNNNNGAAGNNNNNNNTAC | 2 | 1287; 1983 |
| BasI | CCANNNN!NTGG | 0 | |
| BauI | C!ACGAG | 2 | 4143; 5170 |
| BauI | C!TCGTG | 1 | 4017 |
| BbeI | GGCGC!C | 3 | 829; 1525; 3428 |
| Bbr7I | GAAGACNNNNNN! | 0 | |
| Bbr7I | !NNNNNNNNNNGTCTTC | 0 | |
| BbrPI | CAC!GTG | 2 | 815; 1511 |
| BbsI | GAAGACNN! | 0 | |
| BbsI | !NNNNNNGTCTTC | 0 | |
| BbuI | GCATG!C | 3 | 2995; 3067; 3830 |
| BbvI | GCAGCNNNNNNNN! | 8 | 889; 1585; 2213; 3498; 3540; 4061; 4514; 5014 |
| BbvI | !NNNNNNNNNNGCTGC | 10 | 852; 1270; 1548; 1966; 2707; 3372; 3556; 3649; 4715; 4921 |
| Bbv12I | GWGCW!C | 8 | 620; 895; 1048; 1591; 1744; 3538; 3728; 5033 |
| BbvCI | CC!TCAGC | 0 | |
| BbvCI | GC!TGAGG | 0 | |
| BccI | CCATCNNNN! | 4 | 2555; 3119; 3645; 4147 |
| BccI | !NNNNNGATGG | 6 | 1154; 1370; 1850; 2523; 3303; 3731 |
| BceAI | ACGGCNNNNNNNNNN! | 16 | 758; 791; 890; 992; 1064; 1085; 1151; 1454; 1487; 1586; 1688; 1760; 1781; 1847; 3851; 4338 |
| BceAI | !NNNNNNNNNNNNGCCGT | 5 | 1212; 1908; 2566; 3384; 4843 |
| Bcefl | ACGGCNNNNNNNNNN! | 16 | 758; 791; 890; 992; 1064; 1085; 1151; 1454; 1487; 1586; 1688; 1760; 1781; 1847; 3851; 4338 |
| Bcefl | !NNNNNNNNNNNNGCCGT | 5 | 1213; 1909; 2567; 3385; 4844 |
| BcgI | CGANNNNNNNTGCNNNNNNNNNN! | 0 | |
| BcgI | !NNNNNNNNNNGCANNNNNNNTCG | 4 | 767; 869; 1463; 1565 |
| BcgI | GCANNNNNNNTGCNNNNNNNNNN! | 4 | 801; 903; 1497; 1599 |
| BcgI | !NNNNNNNNNNGCANNNNNNNTGC | 0 | |
| BciVI | GTATCCNNNNNN! | 3 | 2854; 3644; 5145 |
| BciVI | !NNNNNGGATAC | 0 | |
| BclI | T!GATCA | 0 | |
| BcnI | CC!SGG | 12 | 657; 658; 1249; 1334; 1372; 1373; 1945; 2030; 3429; 3589; 4202; 4966 |
| BcuI | A!CTAGT | 0 | |
| BdaI | TGANNNNNNNTCANNNNNNNNNN! | 1 | 5278 |
| BdaI | !NNNNNNNNNNTGANNNNNNNTCA | 1 | 5244 |
| BfaI | C!TAG | 8 | 592; 2080; 2274; 2692; 3248; 4263; 4597; 4850 |
| BfiI | ACTGGGNNNNN! | 1 | 3374 |
| BfiI | !NNNNCCCAGT | 2 | 289; 3126 |
| BfmI | C!TRYAG | 4 | 634; 2760; 4887; 5078 |
| BfoI | RGCGC!Y | 7 | 598; 829; 1525; 2692; 2700; 3428; 5103 |
| BfrI | C!TTAAG | 1 | 2307 |
| BfuI | GTATCCNNNNNN! | 3 | 2854; 3644; 5145 |
| BfuI | !NNNNNGGATAC | 0 | |
| BfuAI | ACCTGCNNNN! | 4 | 1354; 2050; 3693; 4143 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|-------------------------|-------|--|
| BfuAI | !NNNNNNNNGCAGGT | 1 | 3312 |
| BfuCI | !GATC | 27 | 585; 609; 660; 907; 1027; 1189; 1365; 1603; 1723; 1885; 2082; 3262; 3266; 3285; 3596; 3674; 3755; 3764; 3842; 4218; 4234; 4593; 4605; 4683; 4691; 4702; 4777 |
| BglI | GCCNNNN!NGGC | 8 | 90; 212; 283; 1015; 1329; 1711; 2025; 3200 |
| BglII | A!GATCT | 2 | 609; 1365 |
| BisI | GC!NGC | 45 | 689; 866; 878; 980; 1094; 1097; 1148; 1284; 1385; 1562; 1574; 1676; 1790; 1793; 1844; 1980; 2072; 2202; 2721; 2743; 2757; 3195; 3334; 3386; 3397; 3487; 3492; 3529; 3570; 3657; 3660; 3663; 3899; 3995; 4036; 4050; 4164; 4503; 4518; 4729; 4935; 4938; 5003; 5146; 5301 |
| BlnI | C!CTAGG | 2 | 3247; 4262 |
| BlpI | GC!TNAGC | 0 | |
| BlsI | GCN!GC | 45 | 690; 867; 879; 981; 1095; 1098; 1149; 1285; 1386; 1563; 1575; 1677; 1791; 1794; 1845; 1981; 2073; 2203; 2722; 2744; 2758; 3196; 3335; 3387; 3398; 3488; 3493; 3530; 3571; 3658; 3661; 3664; 3900; 3996; 4037; 4051; 4165; 4504; 4519; 4730; 4936; 4939; 5004; 5147; 5302 |
| BmcAI | AGT!ACT | 2 | 1305; 2001 |
| Bme18I | G!GWCC | 5 | 666; 883; 1579; 3941; 4386 |
| Bme1390I | CC!NGG | 31 | 90; 283; 657; 658; 855; 950; 999; 1011; 1249; 1334; 1372; 1373; 1551; 1646; 1695; 1707; 1945; 2030; 2961; 3016; 3033; 3429; 3589; 3812; 4202; 4391; 4494; 4966; 5184; 5197; 5318 |
| BmeRI | GACNNN!NNGTC | 0 | |
| BmeT110I | C!YCGRG | 10 | 613; 656; 936; 1128; 1350; 1371; 1632; 1824; 2046; 2065 |
| BmgBI | CAC!GTC | 0 | |
| BmgBI | GAC!GTG | 0 | |
| BmgT120I | GG!NCC | 20 | 84; 277; 655; 667; 858; 884; 1072; 1164; 1332; 1554; 1580; 1768; 1860; 2028; 2533; 3942; 4387; 4433; 4491; 4524 |
| BmiI | GGN!NCC | 34 | 467; 655; 662; 734; 794; 827; 859; 1052; 1073; 1105; 1185; 1275; 1430; 1490; 1523; 1555; 1748; 1769; 1801; 1881; 1971; 2580; 2601; 2613; 2804; 2965; 3037; 3426; 3461; 4309; 4388; 4433; 5276; 5315 |
| BmrI | ACTGGGNNNNN! | 1 | 3374 |
| BmrI | !NNNNCCCAGT | 2 | 289; 3126 |
| BmrFI | CC!NGG | 31 | 90; 283; 657; 658; 855; 950; 999; 1011; 1249; 1334; 1372; 1373; 1551; 1646; 1695; 1707; 1945; 2030; 2961; 3016; 3033; 3429; 3589; 3812; 4202; 4391; 4494; 4966; 5184; 5197; 5318 |
| BmsI | GCATCNNNNN! | 10 | 721; 991; 1417; 1687; 2241; 3004; 3076; 3724; 3788; 4063 |
| BmsI | !NNNNNNNNNGATGC | 7 | 357; 1270; 1966; 3383; 3638; 3854; 5246 |
| BmtI | GCTAG!C | 1 | 595 |
| BmuI | ACTGGGNNNNN! | 1 | 3374 |
| BmuI | !NNNNCCCAGT | 2 | 289; 3126 |
| BoxI | GACNN!NNGTC | 0 | |
| BpiI | GAAGACNN! | 0 | |
| BpiI | !NNNNNGTCTTC | 0 | |
| BpI | GAGNNNNCTCNNNNNNNNNNNN! | 2 | 3214; 4113 |
| BpI | !NNNNNNNGAGNNNNNCTC | 2 | 3182; 4081 |
| BpmI | CTGGAGNNNNNNNNNNNNNNNN! | 3 | 1032; 1728; 4265 |
| BpmI | !NNNNNNNNNNNNNNNNCTCCAG | 3 | 1260; 1956; 4208 |
| Bpu10I | CC!TNAGC | 0 | |
| Bpu10I | GC!TNAGG | 0 | |
| Bpu14I | TT!CGAA | 2 | 627; 4107 |
| Bpu1102I | GC!TNAGC | 0 | |
| BpuAI | GAAGACNN! | 0 | |
| BpuAI | !NNNNNGTCTTC | 0 | |
| BpuEI | CTTGAGNNNNNNNNNNNNNNNN! | 2 | 4719; 5258 |
| BpuEI | !NNNNNNNNNNNNNNNNCTCAAG | 3 | 604; 3801; 4960 |
| BpuMI | CC!SGG | 12 | 657; 658; 1249; 1334; 1372; 1373; 1945; 2030; 3429; 3589; 4202; 4966 |
| BpvUI | CGAT!CG | 0 | |
| BsaI | GGTCTCN! | 0 | |
| BsaI | !NNNNNGAGACC | 1 | 4414 |
| Bsa29I | AT!CGAT | 1 | 3265 |
| BsaAI | YAC!GTR | 5 | 340; 815; 1511; 2541; 3729 |
| BsaBI | GATNN!NNATC | 2 | 2087; 3284 |
| BsaHI | GR!CGYC | 9 | 122; 175; 258; 444; 826; 1522; 3425; 4127; 4206 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|-----------------------------|-------|---|
| BsaJI | C!CNGGG | 27 | 360; 649; 656; 679; 820; 937; 949; 1114; 1371; 1516; 1633; 1645; 1810; 2959; 3031; 3154; 3189; 3198; 3247; 3588; 3857; 4262; 4389; 4390; 4492; 4493; 5183 |
| BsaMI | GAATGCN! | 1 | 2176 |
| BsaMI | G!CATTC | 1 | 2269 |
| BsaWI | W!CCGGW | 8 | 600; 663; 1213; 1909; 3456; 4300; 4990; 5137 |
| BsaXI | ACNNNNNCTCCNNNNNNNNNN! | 1 | 2505 |
| BsaXI | !NNNNNNNGGAGNNNNNGT | 0 | |
| BsaXI | GGAGNNNNNGTNNNNNNNNNN! | 0 | |
| BsaXI | !NNNNNNNNNACNNNNNCTCC | 1 | 2475 |
| BsbI | CAACACNNNNNNNNNNNNNNNNNNNN! | 0 | |
| BsbI | !NNNNNNNNNNNNNNNNNNNGTGTG | 2 | 2426; 4333 |
| Bsc4I | CCNNNNN!NNGG | 32 | 49; 650; 663; 698; 789; 1068; 1134; 1172; 1213; 1270; 1394; 1485; 1764; 1830; 1868; 1909; 1966; 2437; 2763; 3155; 3406; 3950; 4231; 4263; 4395; 4430; 4480; 4512; 4865; 5144; 5310; 5328 |
| BscAI | GCATCNNNN! | 10 | 720; 990; 1416; 1686; 2240; 3003; 3075; 3723; 3787; 4062 |
| BscAI | !NNNNNGATGC | 7 | 360; 1273; 1969; 3386; 3641; 3857; 5249 |
| BseI | ACTGGN! | 3 | 3369; 3570; 4816 |
| BseI | C!CAGT | 5 | 295; 2454; 3132; 4928; 4941 |
| Bse8I | GATNN!NNATC | 2 | 2087; 3284 |
| Bse2II | CC!TNAGG | 2 | 2905; 4537 |
| Bse118I | R!CCGGY | 9 | 668; 789; 1180; 1485; 1876; 2642; 3744; 3925; 4208 |
| BseAI | T!CCGGA | 1 | 663 |
| BseBI | CC!WGG | 19 | 90; 283; 855; 950; 999; 1011; 1551; 1646; 1695; 1707; 2961; 3016; 3033; 3812; 4391; 4494; 5184; 5197; 5318 |
| BseCI | AT!CGAT | 1 | 3265 |
| BseDI | C!CNGGG | 27 | 360; 649; 656; 679; 820; 937; 949; 1114; 1371; 1516; 1633; 1645; 1810; 2959; 3031; 3154; 3189; 3198; 3247; 3588; 3857; 4262; 4389; 4390; 4492; 4493; 5183 |
| Bse3DI | GCAATGNN! | 1 | 3658 |
| Bse3DI | !CATTGC | 0 | |
| BseGI | GGATGNN! | 5 | 1381; 3285; 3742; 3767; 4221 |
| BseGI | !CATCC | 7 | 850; 982; 1267; 1546; 1678; 1963; 3111 |
| BseJI | GATNN!NNATC | 2 | 2087; 3284 |
| BseLI | CCNNNNN!NNGG | 32 | 49; 650; 663; 698; 789; 1068; 1134; 1172; 1213; 1270; 1394; 1485; 1764; 1830; 1868; 1909; 1966; 2437; 2763; 3155; 3406; 3950; 4231; 4263; 4395; 4430; 4480; 4512; 4865; 5144; 5310; 5328 |
| BseMI | GCAATGNN! | 1 | 3658 |
| BseMI | !CATTGC | 0 | |
| BseMII | CTCAGNNNNNNNNNN! | 2 | 620; 4551 |
| BseMII | !NNNNNNNNCTGAG | 5 | 2896; 3198; 4079; 4651; 5060 |
| BseNI | ACTGGN! | 3 | 3369; 3570; 4816 |
| BseNI | C!CAGT | 5 | 295; 2454; 3132; 4928; 4941 |
| BsePI | G!CGCGC | 2 | 1232; 1928 |
| BseRI | GAGGAGNNNNNNNNNN! | 1 | 3243 |
| BseRI | !NNNNNNNNNCTCCTC | 0 | |
| BseSI | GKGCMI!C | 10 | 657; 735; 895; 1048; 1431; 1591; 1744; 3371; 3464; 5033 |
| BseXI | GCAGCNNNNNNNN! | 8 | 889; 1585; 2213; 3498; 3540; 4061; 4514; 5014 |
| BseXI | !NNNNNNNNNNNGCTGC | 10 | 852; 1270; 1548; 1966; 2707; 3372; 3556; 3649; 4715; 4921 |
| BseX3I | C!GGCCG | 3 | 1148; 1844; 3331 |
| BseYI | C!CCAGC | 5 | 1107; 1803; 2968; 3040; 5039 |
| BseYI | G!CTGGG | 3 | 1099; 1795; 3929 |
| BsgI | GTGCAGNNNNNNNNNNNNNNNN! | 0 | |
| BsgI | !NNNNNNNNNNNNNCTGCAC | 0 | |
| Bsh1236I | CG!CG | 18 | 60; 651; 1234; 1930; 2074; 2349; 2725; 2745; 2769; 2800; 3491; 3792; 4230; 4314; 4377; 4446; 4719; 5300 |
| Bsh1285I | CGRY!CG | 7 | 673; 1151; 1181; 1847; 1877; 3334; 5009 |
| BshFI | GG!CC | 41 | 84; 277; 655; 691; 745; 858; 1072; 1150; 1164; 1227; 1323; 1332; 1359; 1387; 1441; 1554; 1768; 1846; 1860; 1923; 2019; 2028; 2055; 2071; 2391; 2533; 3188; 3194; 3203; 3246; 3333; 3507; 3898; 3925; 4434; 4491; 4524; 4869; 5303; 5321; 5332 |
| BshNI | G!GYRCC | 14 | 465; 732; 792; 825; 1050; 1183; 1428; 1488; 1521; 1746; 1879; 2578; 3424; 3459 |
| BshTI | A!CCGGT | 1 | 668 |
| BshVI | AT!CGAT | 1 | 3265 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|--------------------------|-------|---|
| BsiEI | CGRY!CG | 7 | 673; 1151; 1181; 1847; 1877; 3334; 5009 |
| BsiHKAI | GWGCW!C | 8 | 620; 895; 1048; 1591; 1744; 3538; 3728; 5033 |
| BsiHKCI | C!YCGRG | 10 | 613; 656; 936; 1128; 1350; 1371; 1632; 1824; 2046; 2065 |
| BsiSI | C!CGG | 35 | 601; 657; 664; 669; 790; 1151; 1181; 1214; 1249; 1271; 1334; 1372; 1486; 1847; 1877; 1910; 1945; 1967; 2030; 2643; 3330; 3407; 3429; 3457; 3588; 3678; 3745; 3926; 4201; 4209; 4301; 4775; 4965; 4991; 5138 |
| BsiWI | C!GTACG | 0 | |
| BsII | CCNNNNN!NNGG | 32 | 49; 650; 663; 698; 789; 1068; 1134; 1172; 1213; 1270; 1394; 1485; 1764; 1830; 1868; 1909; 1966; 2437; 2763; 3155; 3406; 3950; 4231; 4263; 4395; 4430; 4480; 4512; 4865; 5144; 5310; 5328 |
| BsIFI | GGGACNNNNNNNNNN! | 6 | 175; 326; 494; 3576; 4108; 4217 |
| BsIFI | !NNNNNNNNNNNNNGTCCC | 4 | 2941; 3013; 3077; 4372 |
| BsmI | GAATGCN! | 1 | 2176 |
| BsmI | G!CATTC | 1 | 2269 |
| BsmAI | GTCTCN! | 1 | 434 |
| BsmAI | !NNNNNGAGAC | 4 | 2849; 3267; 4286; 4414 |
| BsmBI | CGTCTCN! | 0 | |
| BsmBI | !NNNNNGAGACG | 0 | |
| BsmFI | GGGACNNNNNNNNNN! | 6 | 175; 326; 494; 3576; 4108; 4217 |
| BsmFI | !NNNNNNNNNNNNNGTCCC | 4 | 2941; 3013; 3077; 4372 |
| BsnI | GG!CC | 41 | 84; 277; 655; 691; 745; 858; 1072; 1150; 1164; 1227; 1323; 1332; 1359; 1387; 1441; 1554; 1768; 1846; 1860; 1923; 2019; 2028; 2055; 2071; 2391; 2533; 3188; 3194; 3203; 3246; 3333; 3507; 3898; 3925; 4434; 4491; 4524; 4869; 5303; 5321; 5332 |
| Bso31I | GGTCTCN! | 0 | |
| Bso31I | !NNNNNGAGACC | 1 | 4414 |
| BsoBI | C!YCGRG | 10 | 613; 656; 936; 1128; 1350; 1371; 1632; 1824; 2046; 2065 |
| Bsp13I | T!CCGGA | 1 | 663 |
| Bsp19I | C!CATGG | 4 | 360; 679; 3154; 3857 |
| Bsp24I | GACNNNNNNTGGNNNNNNNNNN! | 2 | 289; 4228 |
| Bsp24I | !NNNNNNNCCANNNNNNNGTC | 2 | 4649; 4827 |
| Bsp24I | CCANNNNNNGTCTNNNNNNNNNN! | 2 | 4681; 4859 |
| Bsp24I | !NNNNNNNNGACNNNNNNTGG | 2 | 257; 4196 |
| Bsp68I | TCG!CGA | 0 | |
| Bsp119I | TT!CGAA | 2 | 627; 4107 |
| Bsp120I | G!GGCCC | 1 | 653 |
| Bsp143I | !GATC | 27 | 585; 609; 660; 907; 1027; 1189; 1365; 1603; 1723; 1885; 2082; 3262; 3266; 3285; 3596; 3674; 3755; 3764; 3842; 4218; 4234; 4593; 4605; 4683; 4691; 4702; 4777 |
| Bsp1286I | GDGCH!C | 18 | 620; 657; 735; 895; 1048; 1108; 1431; 1591; 1744; 1804; 2616; 3371; 3464; 3538; 3728; 3790; 4500; 5033 |
| Bsp1407I | T!GTACA | 2 | 721; 1417 |
| Bsp1720I | GC!TNAGC | 0 | |
| BspACI | C!CGC | 39 | 58; 86; 98; 112; 279; 507; 589; 649; 901; 991; 1063; 1597; 1687; 1759; 2072; 2740; 2743; 2757; 2847; 3095; 3107; 3116; 3128; 3138; 3149; 3195; 3334; 3397; 3899; 3944; 4010; 4036; 4161; 4164; 4312; 4444; 4751; 4895; 5391 |
| BspACI | G!CGG | 36 | 370; 403; 528; 651; 688; 979; 1093; 1096; 1147; 1286; 1384; 1675; 1789; 1792; 1843; 1982; 2685; 2712; 2800; 2910; 3491; 3555; 3656; 3659; 3939; 3994; 4092; 4230; 4377; 4517; 4760; 5005; 5126; 5145; 5272; 5300 |
| BspCNI | CTCAGNNNNNNNN! | 2 | 619; 4550 |
| BspCNI | !NNNNNNNCTGAG | 5 | 2897; 3199; 4080; 4652; 5061 |
| BspDI | AT!CGAT | 1 | 3265 |
| BspD6I | GACTCNNNN! | 6 | 418; 612; 2084; 2498; 4104; 4981 |
| BspD6I | !NNNNNNGAGTC | 2 | 2461; 2893 |
| BspEI | T!CCGGA | 1 | 663 |
| BspFNI | CG!CG | 18 | 60; 651; 1234; 1930; 2074; 2349; 2725; 2745; 2769; 2800; 3491; 3792; 4230; 4314; 4377; 4446; 4719; 5300 |
| BspHI | T!CATGA | 2 | 2851; 4623 |
| BspLI | GGN!NCC | 34 | 467; 655; 662; 734; 794; 827; 859; 1052; 1073; 1105; 1185; 1275; 1430; 1490; 1523; 1555; 1748; 1769; 1801; 1881; 1971; 2580; 2601; 2613; 2804; 2965; 3037; 3426; 3461; 4309; 4388; 4433; 5276; 5315 |
| BspMI | ACCTGCNNNN! | 4 | 1354; 2050; 3693; 4143 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|-----------------|-------|---|
| BspMI | !NNNNNNNNGCAGGT | 1 | 3312 |
| BspOI | GCTAG!C | 1 | 595 |
| BspPI | GGATCNNNN! | 8 | 668; 3293; 3604; 3850; 4242; 4601; 4699; 4785 |
| BspPI | !NNNNNGATCC | 8 | 580; 655; 902; 1598; 3669; 4213; 4600; 4697 |
| BspQI | GCTCTTCN! | 0 | |
| BspQI | !NNNNGAAGAGC | 2 | 3769; 3979 |
| BspTI | C!TTAAG | 1 | 2307 |
| BspT104I | TT!CGAA | 2 | 627; 4107 |
| BspT107I | G!GYRCC | 14 | 465; 732; 792; 825; 1050; 1183; 1428; 1488; 1521; 1746; 1879; 2578; 3424; 3459 |
| BspTNI | GGTCTCN! | 0 | |
| BspTNI | !NNNNNGAGACC | 1 | 4414 |
| BsrI | ACTGGN! | 3 | 3369; 3570; 4816 |
| BsrI | C!CAGT | 5 | 295; 2454; 3132; 4928; 4941 |
| BsrBI | CCG!CTC | 2 | 2849; 4038 |
| BsrBI | GAG!CGG | 6 | 688; 1093; 1384; 1789; 2685; 4092 |
| BsrDI | GCAATGNN! | 1 | 3658 |
| BsrDI | !CATTGC | 0 | |
| BsrFI | R!CCGGY | 9 | 668; 789; 1180; 1485; 1876; 2642; 3744; 3925; 4208 |
| BsrGI | T!GTACA | 2 | 721; 1417 |
| BsrSI | ACTGGN! | 3 | 3369; 3570; 4816 |
| BsrSI | C!CAGT | 5 | 295; 2454; 3132; 4928; 4941 |
| BssAI | R!CCGGY | 9 | 668; 789; 1180; 1485; 1876; 2642; 3744; 3925; 4208 |
| BssECI | C!CNNGG | 27 | 360; 649; 656; 679; 820; 937; 949; 1114; 1371; 1516; 1633; 1645; 1810; 2959; 3031; 3154; 3189; 3198; 3247; 3588; 3857; 4262; 4389; 4390; 4492; 4493; 5183 |
| BssHII | G!CGCGC | 2 | 1232; 1928 |
| BssKI | !CCNGG | 31 | 88; 281; 655; 656; 853; 948; 997; 1009; 1247; 1332; 1370; 1371; 1549; 1644; 1693; 1705; 1943; 2028; 2959; 3014; 3031; 3427; 3587; 3810; 4200; 4389; 4492; 4964; 5182; 5195; 5316 |
| BssMI | !GATC | 27 | 585; 609; 660; 907; 1027; 1189; 1365; 1603; 1723; 1885; 2082; 3262; 3266; 3285; 3596; 3674; 3755; 3764; 3842; 4218; 4234; 4593; 4605; 4683; 4691; 4702; 4777 |
| BssNI | GR!CGYC | 9 | 122; 175; 258; 444; 826; 1522; 3425; 4127; 4206 |
| BssNAI | GTA!TAC | 0 | |
| BssSI | C!ACGAG | 2 | 4143; 5170 |
| BssSI | C!TCGTG | 1 | 4017 |
| BssT1I | C!CWWGG | 6 | 360; 679; 3154; 3247; 3857; 4262 |
| Bst6I | CTCTTCN! | 0 | |
| Bst6I | !NNNNGAAGAG | 3 | 2892; 3769; 3979 |
| Bst98I | C!TTAAG | 1 | 2307 |
| Bst1107I | GTA!TAC | 0 | |
| BstACI | GR!CGYC | 9 | 122; 175; 258; 444; 826; 1522; 3425; 4127; 4206 |
| BstAFI | C!TTAAG | 1 | 2307 |
| BstAPI | GCANNNN!NTGC | 3 | 2992; 3064; 4526 |
| BstAUI | T!GTACA | 2 | 721; 1417 |
| BstBI | TT!CGAA | 2 | 627; 4107 |
| Bst2BI | C!ACGAG | 2 | 4143; 5170 |
| Bst2BI | C!TCGTG | 1 | 4017 |
| BstBAI | YAC!GTR | 5 | 340; 815; 1511; 2541; 3729 |
| Bst4CI | ACN!GT | 15 | 76; 198; 269; 543; 581; 737; 1433; 2516; 3805; 3921; 4029; 4352; 4843; 5313; 5384 |
| BstC8I | GCN!NGC | 38 | 86; 279; 593; 653; 693; 791; 1140; 1234; 1325; 1389; 1487; 1836; 1930; 2021; 2644; 2687; 2701; 2974; 2993; 3046; 3065; 3319; 3505; 3724; 3790; 3796; 3828; 3869; 3873; 3927; 4210; 4397; 4444; 4500; 4522; 4733; 5293; 5330 |
| BstDEI | C!TNAG | 7 | 606; 2905; 3207; 4088; 4537; 4660; 5069 |
| BstDSI | C!CRYGG | 5 | 360; 649; 679; 3154; 3857 |
| BstEII | G!GTNACC | 0 | |
| BstENI | CCTNN!NNNAGG | 2 | 696; 1392 |
| BstF5I | GGATGNN! | 5 | 1381; 3285; 3742; 3767; 4221 |
| BstF5I | !CATCC | 7 | 850; 982; 1267; 1546; 1678; 1963; 3111 |
| BstFNI | CG!CG | 18 | 60; 651; 1234; 1930; 2074; 2349; 2725; 2745; 2769; 2800; 3491; 3792; 4230; 4314; 4377; 4446; 4719; 5300 |
| BstH2I | RGCGC!Y | 7 | 598; 829; 1525; 2692; 2700; 3428; 5103 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|----------------------|-------|--|
| BstHHI | GCG!C | 29 | 597; 712; 828; 1234; 1236; 1408; 1524; 1930; 1932; 2691; 2699; 2725; 2747; 2756; 2769; 2800; 3419; 3427; 3491; 3528; 3794; 4054; 4230; 4316; 4719; 4828; 5002; 5102; 5169 |
| BstKTI | GAT!C | 27 | 588; 612; 663; 910; 1030; 1192; 1368; 1606; 1726; 1888; 2085; 3265; 3269; 3288; 3599; 3677; 3758; 3767; 3845; 4221; 4237; 4596; 4608; 4686; 4694; 4705; 4780 |
| BstMAI | GTCTCN! | 1 | 434 |
| BstMAI | !NNNNNGAGAC | 4 | 2849; 3267; 4286; 4414 |
| BstMBI | !GATC | 27 | 585; 609; 660; 907; 1027; 1189; 1365; 1603; 1723; 1885; 2082; 3262; 3266; 3285; 3596; 3674; 3755; 3764; 3842; 4218; 4234; 4593; 4605; 4683; 4691; 4702; 4777 |
| BstMCI | CGRY!CG | 7 | 673; 1151; 1181; 1847; 1877; 3334; 5009 |
| BstMWI | GCNNNNN!NNGC | 41 | 90; 212; 244; 283; 376; 400; 799; 874; 1015; 1144; 1216; 1233; 1280; 1329; 1495; 1570; 1711; 1840; 1912; 1929; 1976; 2025; 2652; 2682; 2709; 2751; 2992; 3064; 3115; 3194; 3416; 3500; 3523; 3662; 3785; 3868; 4135; 4322; 4526; 4725; 5297 |
| BstNI | CC!WGG | 19 | 90; 283; 855; 950; 999; 1011; 1551; 1646; 1695; 1707; 2961; 3016; 3033; 3812; 4391; 4494; 5184; 5197; 5318 |
| BstNSI | RCATG!Y | 4 | 2995; 3067; 3830; 5347 |
| BstOI | CC!WGG | 19 | 90; 283; 855; 950; 999; 1011; 1551; 1646; 1695; 1707; 2961; 3016; 3033; 3812; 4391; 4494; 5184; 5197; 5318 |
| BstPI | G!GTNACC | 0 | |
| BstPAI | GACNN!NNGTC | 0 | |
| BstSCI | !CCNGG | 31 | 88; 281; 655; 656; 853; 948; 997; 1009; 1247; 1332; 1370; 1371; 1549; 1644; 1693; 1705; 1943; 2028; 2959; 3014; 3031; 3427; 3587; 3810; 4200; 4389; 4492; 4964; 5182; 5195; 5316 |
| BstSFI | C!TRYAG | 4 | 634; 2760; 4887; 5078 |
| BstSLI | GKGC!C | 10 | 657; 735; 895; 1048; 1431; 1591; 1744; 3371; 3464; 5033 |
| BstSNI | TAC!GTA | 1 | 340 |
| BstUI | CG!CG | 18 | 60; 651; 1234; 1930; 2074; 2349; 2725; 2745; 2769; 2800; 3491; 3792; 4230; 4314; 4377; 4446; 4719; 5300 |
| Bst2UI | CC!WGG | 19 | 90; 283; 855; 950; 999; 1011; 1551; 1646; 1695; 1707; 2961; 3016; 3033; 3812; 4391; 4494; 5184; 5197; 5318 |
| BstV1I | GCAGCNNNNNNN! | 8 | 889; 1585; 2213; 3498; 3540; 4061; 4514; 5014 |
| BstV1I | !NNNNNNNNNNNNGCTGC | 10 | 852; 1270; 1548; 1966; 2707; 3372; 3556; 3649; 4715; 4921 |
| BstV2I | GAAGACNN! | 0 | |
| BstV2I | !NNNNNNGTCTTC | 0 | |
| BstXI | CCANNNNN!NTGG | 0 | |
| BstX2I | R!GATCY | 13 | 585; 609; 660; 907; 1365; 1603; 3596; 3842; 4234; 4593; 4605; 4691; 4702 |
| BstYI | R!GATCY | 13 | 585; 609; 660; 907; 1365; 1603; 3596; 3842; 4234; 4593; 4605; 4691; 4702 |
| BstZI | C!GGCCG | 3 | 1148; 1844; 3331 |
| BstZ17I | GTA!TAC | 0 | |
| BsuI | GTATCCNNNNNN! | 3 | 2854; 3644; 5145 |
| BsuI | !NNNNNGGATAC | 0 | |
| Bsu15I | AT!CGAT | 1 | 3265 |
| Bsu36I | CC!TNAGG | 2 | 2905; 4537 |
| BsuRI | GG!CC | 41 | 84; 277; 655; 691; 745; 858; 1072; 1150; 1164; 1227; 1323; 1332; 1359; 1387; 1441; 1554; 1768; 1846; 1860; 1923; 2019; 2028; 2055; 2071; 2391; 2533; 3188; 3194; 3203; 3246; 3333; 3507; 3898; 3925; 4434; 4491; 4524; 4869; 5303; 5321; 5332 |
| BsuTUI | AT!CGAT | 1 | 3265 |
| BtgI | C!CRYGG | 5 | 360; 649; 679; 3154; 3857 |
| BtgZI | GCGATGNNNNNNNNN! | 2 | 2542; 3877 |
| BtgZI | !NNNNNNNNNNNNNCATCGC | 3 | 334; 3696; 4040 |
| BthCI | GCNG!C | 45 | 691; 868; 880; 982; 1096; 1099; 1150; 1286; 1387; 1564; 1576; 1678; 1792; 1795; 1846; 1982; 2074; 2204; 2723; 2745; 2759; 3197; 3336; 3388; 3399; 3489; 3494; 3531; 3572; 3659; 3662; 3665; 3901; 3997; 4038; 4052; 4166; 4505; 4520; 4731; 4937; 4940; 5005; 5148; 5303 |
| BtrI | CAC!GTC | 0 | |
| BtrI | GAC!GTG | 0 | |
| BtsI | GCAGTGNN! | 0 | |
| BtsI | !CACTGC | 1 | 2264 |
| BtsCI | GGATGNN! | 5 | 1381; 3285; 3742; 3767; 4221 |
| BtsCI | !CATCC | 7 | 850; 982; 1267; 1546; 1678; 1963; 3111 |
| BtuMI | TCG!CGA | 0 | |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|--------------------------------|-------|--|
| BveI | ACCTGCNNNN! | 4 | 1354; 2050; 3693; 4143 |
| BveI | !NNNNNNNNNGCAGGT | 1 | 3312 |
| Cac8I | GCN!NGC | 38 | 86; 279; 593; 653; 693; 791; 1140; 1234; 1325; 1389; 1487; 1836; 1930; 2021; 2644; 2687; 2701; 2974; 2993; 3046; 3065; 3319; 3505; 3724; 3790; 3796; 3828; 3869; 3873; 3927; 4210; 4397; 4444; 4500; 4522; 4733; 5293; 5330 |
| CaiI | CAGNNN!CTG | 4 | 1283; 1979; 4526; 4934 |
| CciI | T!CATGA | 2 | 2851; 4623 |
| CciNI | GC!GGCCGC | 0 | |
| CdiI | CATC!G | 5 | 352; 3714; 3719; 3917; 4058 |
| CdiI | C!GATG | 2 | 2528; 3863 |
| CdpI | GCGGAGNNNNNNNNNNNNNNNNNNNN! | 1 | 5297 |
| CdpI | !NNNNNNNNNNNNNNNNNNNNCTCCGC | 3 | 486; 3086; 3128 |
| CelII | GC!TNAGC | 0 | |
| CfoI | GCG!C | 29 | 597; 712; 828; 1234; 1236; 1408; 1524; 1930; 1932; 2691; 2699; 2725; 2747; 2756; 2769; 2800; 3419; 3427; 3491; 3528; 3794; 4054; 4230; 4316; 4719; 4828; 5002; 5102; 5169 |
| CfrI | Y!GGCCR | 8 | 743; 1148; 1439; 1844; 3331; 3505; 3896; 3923 |
| Cfr9I | C!CCGGG | 2 | 656; 1371 |
| Cfr10I | R!CCGGY | 9 | 668; 789; 1180; 1485; 1876; 2642; 3744; 3925; 4208 |
| Cfr13I | G!GNCC | 20 | 83; 276; 654; 666; 857; 883; 1071; 1163; 1331; 1553; 1579; 1767; 1859; 2027; 2532; 3941; 4386; 4432; 4490; 4523 |
| Cfr42I | CCGC!GG | 1 | 652 |
| ChaI | GATC! | 27 | 589; 613; 664; 911; 1031; 1193; 1369; 1607; 1727; 1889; 2086; 3266; 3270; 3289; 3600; 3678; 3759; 3768; 3846; 4222; 4238; 4597; 4609; 4687; 4695; 4706; 4781 |
| CjeI | CCANNNNNNGTNNNNNNNNNNNNNNNN! | 4 | 3242; 4682; 4782; 4860 |
| CjeI | !NNNNNNNNNACNNNNNNNTGG | 7 | 64; 257; 2909; 3004; 4196; 4746; 5301 |
| CjeI | ACNNNNNNNTGGNNNNNNNNNNNNNNNN! | 7 | 98; 291; 2943; 3038; 4230; 4780; 5335 |
| CjeI | !NNNNNNNNCCANNNNNNGT | 4 | 3208; 4648; 4748; 4826 |
| CjePI | CCANNNNNNNNTCNNNNNNNNNNNNNNNN! | 4 | 1385; 2081; 4682; 4860 |
| CjePI | !NNNNNNNNNGANNNNNNNNNTGG | 3 | 257; 4196; 4795 |
| CjePI | GANNNNNNNTGGNNNNNNNNNNNNNNNN! | 3 | 290; 4229; 4828 |
| CjePI | !NNNNNNNNCCANNNNNNNNTC | 4 | 1352; 2048; 4649; 4827 |
| Clal | AT!CGAT | 1 | 3265 |
| CpoI | CG!GWCCG | 2 | 666; 3941 |
| CseI | GACGCNNNNN! | 3 | 526; 4135; 4214 |
| CseI | !NNNNNNNNNNNGCGTC | 3 | 2758; 4653; 5231 |
| CsiI | A!CCWGGT | 1 | 3014 |
| CspI | CG!GWCCG | 2 | 666; 3941 |
| Csp6I | G!TAC | 19 | 218; 243; 298; 331; 382; 539; 722; 872; 1124; 1304; 1316; 1337; 1418; 1568; 1820; 2000; 2012; 2033; 3730 |
| Csp45I | TT!CGAA | 2 | 627; 4107 |
| CspAI | A!CCGGT | 1 | 668 |
| CspCI | CAANNNNNNGTGGNNNNNNNNNNNNNN! | 1 | 411 |
| CspCI | !NNNNNNNNNNCCACNNNNNTTG | 0 | |
| CspCI | CCACNNNNNTTGNNNNNNNNNNNNNNNN! | 0 | |
| CspCI | !NNNNNNNNNNNCAANNNNNNGTGG | 1 | 376 |
| CstMI | AAGGAGNNNNNNNNNNNNNNNNNNNN! | 4 | 724; 1420; 2705; 4314 |
| CstMI | !NNNNNNNNNNNNNNNNNNNNCTCCTT | 0 | |
| CviAII | C!ATG | 22 | 301; 361; 680; 725; 803; 1244; 1421; 1499; 1940; 2852; 2992; 3064; 3155; 3296; 3641; 3827; 3858; 3884; 4240; 4624; 5344; 5395 |
| CviJI | RG!CY | 113 | 42; 84; 93; 277; 566; 618; 624; 655; 691; 745; 858; 931; 943; 1009; 1072; 1099; 1106; 1150; 1164; 1210; 1227; 1252; 1274; 1313; 1323; 1332; 1359; 1387; 1441; 1554; 1627; 1639; 1705; 1768; 1795; 1802; 1846; 1860; 1906; 1923; 1948; 1970; 2009; 2019; 2028; 2055; 2071; 2094; 2204; 2371; 2391; 2533; 2614; 2628; 2642; 2923; 2964; 3036; 3159; 3188; 3194; 3203; 3211; 3234; 3246; 3252; 3333; 3350; 3358; 3385; 3410; 3494; 3503; 3507; 3531; 3569; 3645; 3662; 3681; 3744; 3788; 3798; 3815; 3898; 3925; 3929; 3966; 3989; 4005; 4185; 4212; 4273; 4395; 4434; 4491; 4498; 4505; 4524; 4535; 4786; 4815; 4858; 4869; 4934; 5013; 5038; 5043; 5089; 5179; 5277; 5303; 5321; 5332 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|--------------------------------|-------|--|
| CviKI-1 | RG!CY | 113 | 42; 84; 93; 277; 566; 618; 624; 655; 691; 745; 858; 931; 943; 1009; 1072; 1099; 1106; 1150; 1164; 1210; 1227; 1252; 1274; 1313; 1323; 1332; 1359; 1387; 1441; 1554; 1627; 1639; 1705; 1768; 1795; 1802; 1846; 1860; 1906; 1923; 1948; 1970; 2009; 2019; 2028; 2055; 2071; 2094; 2204; 2371; 2391; 2533; 2614; 2628; 2642; 2923; 2964; 3036; 3159; 3188; 3194; 3203; 3211; 3234; 3246; 3252; 3333; 3350; 3358; 3385; 3410; 3494; 3503; 3507; 3531; 3569; 3645; 3662; 3681; 3744; 3788; 3798; 3815; 3898; 3925; 3929; 3966; 3989; 4005; 4185; 4212; 4273; 4395; 4434; 4491; 4498; 4505; 4524; 4535; 4786; 4815; 4858; 4869; 4934; 5013; 5038; 5043; 5089; 5179; 5277; 5303; 5321; 5332 |
| CviQI | G!TAC | 19 | 218; 243; 298; 331; 382; 539; 722; 872; 1124; 1304; 1316; 1337; 1418; 1568; 1820; 2000; 2012; 2033; 3730 |
| DdeI | C!TNAG | 7 | 606; 2905; 3207; 4088; 4537; 4660; 5069 |
| DinI | GGC!GCC | 3 | 827; 1523; 3426 |
| DpnI | GA!TC | 27 | 587; 611; 662; 909; 1029; 1191; 1367; 1605; 1725; 1887; 2084; 3264; 3268; 3287; 3598; 3676; 3757; 3766; 3844; 4220; 4236; 4595; 4607; 4685; 4693; 4704; 4779 |
| DpnII | !GATC | 27 | 585; 609; 660; 907; 1027; 1189; 1365; 1603; 1723; 1885; 2082; 3262; 3266; 3285; 3596; 3674; 3755; 3764; 3842; 4218; 4234; 4593; 4605; 4683; 4691; 4702; 4777 |
| DraI | TTT!AAA | 3 | 2127; 4569; 4588 |
| DraII | RG!GNCCY | 3 | 883; 1579; 4523 |
| DraIII | CACNNN!GTG | 1 | 2541 |
| DraRI | CAAGNACNNNNNNNNNNNNNNNNNNNNNN! | 2 | 266; 4905 |
| DraRI | !NNNNNNNNNNNNNNNNNNNGTCTTG | 0 | |
| DrdI | GACNNN!NNGTC | 3 | 2496; 3452; 5241 |
| DrdIV | TACGACNNNNNNNNNNNNNNNNNNNNNN! | 0 | |
| DrdIV | !NNNNNNNNNNNNNNNNNNNGTCGTA | 1 | 476 |
| DriI | GACNNN!NNGTC | 0 | |
| DseDI | GACNNN!NNGTC | 3 | 2496; 3452; 5241 |
| EaeI | Y!GGCCR | 8 | 743; 1148; 1439; 1844; 3331; 3505; 3896; 3923 |
| EagI | C!GGCCG | 3 | 1148; 1844; 3331 |
| Eam1104I | CTCTCN! | 0 | |
| Eam1104I | !NNNNGAAGAG | 3 | 2892; 3769; 3979 |
| Eam1105I | GACNNN!NNGTC | 0 | |
| EarI | CTCTCN! | 0 | |
| EarI | !NNNNGAAGAG | 3 | 2892; 3769; 3979 |
| EciI | GGCGGANNNNNNNNNNNN! | 4 | 2925; 3954; 5141; 5287 |
| EciI | !NNNNNNNNNTCCGCC | 4 | 496; 3096; 3117; 3138 |
| Ecl136II | GAG!CTC | 1 | 618 |
| EclXI | C!GGCCG | 3 | 1148; 1844; 3331 |
| Eco24I | GRGCY!C | 7 | 620; 657; 1108; 1804; 2616; 3790; 4500 |
| Eco31I | GGTCTCN! | 0 | |
| Eco31I | !NNNNNGAGACC | 1 | 4414 |
| Eco32I | GAT!ATC | 0 | |
| Eco47I | G!GWCC | 5 | 666; 883; 1579; 3941; 4386 |
| Eco47III | AGC!GCT | 1 | 596 |
| Eco52I | C!GGCCG | 3 | 1148; 1844; 3331 |
| Eco57I | CTGAAGNNNNNNNNNNNNNNNN! | 6 | 717; 1188; 1413; 1884; 3571; 4003 |
| Eco57I | !NNNNNNNNNNNNNNNNCTTCAG | 1 | 4801 |
| Eco72I | CAC!GTG | 2 | 815; 1511 |
| Eco81I | CC!TNAGG | 2 | 2905; 4537 |
| Eco88I | C!YCGRG | 10 | 613; 656; 936; 1128; 1350; 1371; 1632; 1824; 2046; 2065 |
| Eco91I | G!GTNACC | 0 | |
| Eco105I | TAC!GTA | 1 | 340 |
| Eco130I | C!CWVGG | 6 | 360; 679; 3154; 3247; 3857; 4262 |
| Eco147I | AGG!CCT | 1 | 3246 |
| EcoHI | !CCSGG | 12 | 655; 656; 1247; 1332; 1370; 1371; 1943; 2028; 3427; 3587; 4200; 4964 |
| EcoICRI | GAG!CTC | 1 | 618 |
| Eco57MI | CTGRAGNNNNNNNNNNNNNNNN! | 9 | 717; 1032; 1188; 1413; 1728; 1884; 3571; 4003; 4265 |
| Eco57MI | !NNNNNNNNNNNNNNNNCTYCAG | 4 | 1260; 1956; 4208; 4801 |
| EcoNI | CCTNN!NNNAGG | 2 | 696; 1392 |
| Eco065I | G!GTNACC | 0 | |
| Eco0109I | RG!GNCCY | 3 | 883; 1579; 4523 |
| EcoRI | G!AATTC | 1 | 629 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|--------------------------|-------|---|
| EcoRII | !CCWGG | 19 | 88; 281; 853; 948; 997; 1009; 1549; 1644; 1693; 1705; 2959; 3014; 3031; 3810; 4389; 4492; 5182; 5195; 5316 |
| EcoRV | GAT!ATC | 0 | |
| EcoT14I | C!CWWGG | 6 | 360; 679; 3154; 3247; 3857; 4262 |
| EcoT22I | ATGCA!T | 3 | 2997; 3069; 5400 |
| EcoT38I | GRGCY!C | 7 | 620; 657; 1108; 1804; 2616; 3790; 4500 |
| Eco53kI | GAG!CTC | 1 | 618 |
| EgeI | GGC!GCC | 3 | 827; 1523; 3426 |
| EheI | GGC!GCC | 3 | 827; 1523; 3426 |
| ErhI | C!CWWGG | 6 | 360; 679; 3154; 3247; 3857; 4262 |
| EsaBC3I | TC!GA | 19 | 615; 628; 641; 848; 1310; 1544; 2006; 2067; 2575; 3266; 3539; 3695; 3719; 3755; 3917; 4108; 4153; 4408; 5246 |
| Esp3I | CGTCTCN! | 0 | |
| Esp3I | !NNNNNGAGACG | 0 | |
| FaeI | CATG! | 22 | 304; 364; 683; 728; 806; 1247; 1424; 1502; 1943; 2855; 2995; 3067; 3158; 3299; 3644; 3830; 3861; 3887; 4243; 4627; 5347; 5398 |
| Fail | YA!TR | 60 | 39; 46; 50; 67; 138; 146; 234; 236; 291; 302; 310; 362; 555; 557; 681; 708; 726; 804; 1245; 1404; 1422; 1500; 1941; 2087; 2097; 2163; 2208; 2413; 2841; 2853; 2984; 2993; 3056; 3065; 3089; 3156; 3180; 3297; 3361; 3642; 3667; 3828; 3859; 3885; 3957; 4173; 4241; 4319; 4371; 4532; 4549; 4551; 4553; 4625; 4903; 5092; 5208; 5281; 5345; 5396 |
| FalI | AAGNNNNNCTTNNNNNNNNNNNN! | 3 | 947; 1643; 3765 |
| FalI | !NNNNNNNNAAGNNNNNCTT | 3 | 915; 1611; 3733 |
| FaqI | GGGACNNNNNNNNNN! | 6 | 175; 326; 494; 3576; 4108; 4217 |
| FaqI | !NNNNNNNNNNNNNGTCCC | 4 | 2941; 3013; 3077; 4372 |
| FatI | !CATG | 22 | 300; 360; 679; 724; 802; 1243; 1420; 1498; 1939; 2851; 2991; 3063; 3154; 3295; 3640; 3826; 3857; 3883; 4239; 4623; 5343; 5394 |
| FauI | CCCGCNNNN! | 10 | 93; 119; 286; 1070; 1766; 2747; 3102; 3123; 4319; 4451 |
| FauI | !NNNNNNGCGGG | 6 | 644; 2678; 3548; 4085; 4223; 4370 |
| FauNDI | CA!TATG | 1 | 234 |
| FbaI | T!GATCA | 0 | |
| FblI | GT!MKAC | 1 | 640 |
| FmuI | GGNC!C | 20 | 86; 279; 657; 669; 860; 886; 1074; 1166; 1334; 1556; 1582; 1770; 1862; 2030; 2535; 3944; 4389; 4435; 4493; 4526 |
| Fnu4HI | GC!NGC | 45 | 689; 866; 878; 980; 1094; 1097; 1148; 1284; 1385; 1562; 1574; 1676; 1790; 1793; 1844; 1980; 2072; 2202; 2721; 2743; 2757; 3195; 3334; 3386; 3397; 3487; 3492; 3529; 3570; 3657; 3660; 3663; 3899; 3995; 4036; 4050; 4164; 4503; 4518; 4729; 4935; 4938; 5003; 5146; 5301 |
| FokI | GGATGNNNNNNNNN! | 5 | 1388; 3292; 3749; 3774; 4228 |
| FokI | !NNNNNNNNNNNNNCATCC | 7 | 837; 969; 1254; 1533; 1665; 1950; 3098 |
| FriOI | GRGCY!C | 7 | 620; 657; 1108; 1804; 2616; 3790; 4500 |
| FseI | GGCCGG!CC | 0 | |
| FspI | TGC!GCA | 3 | 711; 1407; 3527 |
| FspAI | RTGC!GCAY | 2 | 711; 1407 |
| FspBI | C!TAG | 8 | 592; 2080; 2274; 2692; 3248; 4263; 4597; 4850 |
| FspEI | CCNNNNNNNNNNNN! | 193 | 56; 71; 98; 114; 128; 129; 156; 182; 220; 252; 291; 307; 333; 373; 450; 451; 482; 501; 520; 593; 614; 657; 677; 692; 705; 749; 795; 809; 825; 842; 857; 872; 899; 914; 948; 962; 977; 999; 1019; 1038; 1067; 1086; 1120; 1140; 1164; 1178; 1194; 1209; 1227; 1241; 1256; 1277; 1337; 1359; 1373; 1401; 1445; 1491; 1505; 1521; 1538; 1553; 1568; 1595; 1610; 1644; 1658; 1673; 1695; 1715; 1734; 1763; 1782; 1816; 1836; 1860; 1874; 1890; 1905; 1923; 1937; 1952; 1973; 2033; 2055; 2069; 2085; 2108; 2147; 2161; 2302; 2397; 2421; 2444; 2467; 2485; 2507; 2528; 2547; 2566; 2595; 2616; 2630; 2656; 2744; 2770; 2819; 2860; 2878; 2917; 2933; 2971; 3028; 3043; 3100; 3120; 3134; 3151; 3165; 3202; 3217; 3260; 3343; 3410; 3441; 3461; 3476; 3521; 3535; 3601; 3615; 3634; 3650; 3691; 3711; 3758; 3808; 3824; 3844; 3869; 3889; 3912; 3939; 3957; 3983; 4023; 4049; 4073; 4129; 4143; 4171; 4214; 4235; 4270; 4314; 4402; 4426; 4448; 4468; 4484; 4505; 4519; 4538; 4622; 4642; 4670; 4685; 4719; 4761; 4788; 4803; 4848; 4872; 4886; 4908; 4934; 4954; 4978; 5004; 5052; 5071; 5090; 5116; 5151; 5196; 5226; 5240; 5291; 5305; 5330; 5346; 5367; 5396 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|---------------------------|-------|--|
| FspEI | !NNNNNNNNNNNNNNNNNGG | 154 | 8; 35; 59; 144; 166; 197; 252; 295; 347; 375; 400; 435; 463; 509; 529; 552; 586; 636; 654; 673; 684; 711; 747; 775; 807; 840; 859; 924; 957; 984; 1020; 1054; 1078; 1101; 1120; 1146; 1166; 1199; 1234; 1256; 1281; 1305; 1341; 1362; 1380; 1407; 1443; 1471; 1503; 1536; 1555; 1620; 1653; 1680; 1716; 1750; 1774; 1797; 1816; 1842; 1862; 1895; 1930; 1952; 1977; 2001; 2037; 2096; 2196; 2265; 2295; 2373; 2422; 2444; 2472; 2508; 2553; 2582; 2618; 2637; 2665; 2685; 2748; 2771; 2879; 2911; 2929; 2958; 3001; 3030; 3141; 3170; 3213; 3234; 3262; 3295; 3315; 3340; 3367; 3392; 3414; 3442; 3468; 3489; 3540; 3561; 3579; 3627; 3663; 3719; 3744; 3768; 3797; 3820; 3844; 3870; 3892; 3911; 3936; 3976; 4012; 4077; 4162; 4186; 4215; 4249; 4270; 4290; 4335; 4362; 4381; 4414; 4466; 4497; 4524; 4576; 4674; 4745; 4790; 4851; 4916; 4950; 4976; 4994; 5030; 5100; 5123; 5145; 5169; 5202; 5250; 5285; 5303; 5360 |
| Fsp4HI | GC!NGC | 45 | 689; 866; 878; 980; 1094; 1097; 1148; 1284; 1385; 1562; 1574; 1676; 1790; 1793; 1844; 1980; 2072; 2202; 2721; 2743; 2757; 3195; 3334; 3386; 3397; 3487; 3492; 3529; 3570; 3657; 3660; 3663; 3899; 3995; 4036; 4050; 4164; 4503; 4518; 4729; 4935; 4938; 5003; 5146; 5301 |
| GdiII | C!GGCCR | 5 | 743; 1148; 1439; 1844; 3331 |
| GdiII | Y!GGCCG | 5 | 1148; 1844; 3331; 3896; 3923 |
| GlaI | GC!GC | 29 | 596; 711; 827; 1233; 1235; 1407; 1523; 1929; 1931; 2690; 2698; 2724; 2746; 2755; 2768; 2799; 3418; 3426; 3490; 3527; 3793; 4053; 4229; 4315; 4718; 4827; 5001; 5101; 5168 |
| Glul | GC!NGC | 45 | 689; 866; 878; 980; 1094; 1097; 1148; 1284; 1385; 1562; 1574; 1676; 1790; 1793; 1844; 1980; 2072; 2202; 2721; 2743; 2757; 3195; 3334; 3386; 3397; 3487; 3492; 3529; 3570; 3657; 3660; 3663; 3899; 3995; 4036; 4050; 4164; 4503; 4518; 4729; 4935; 4938; 5003; 5146; 5301 |
| GsaI | CCCAG!C | 5 | 1111; 1807; 2972; 3044; 5043 |
| GsaI | GCTGG!G | 3 | 1103; 1799; 3933 |
| GsuI | CTGGAGNNNNNNNNNNNNNN! | 3 | 1032; 1728; 4265 |
| GsuI | !NNNNNNNNNNNNNNCTCCAG | 3 | 1260; 1956; 4208 |
| HaeI | WGG!CCW | 9 | 1323; 1359; 2019; 2055; 3246; 3507; 4869; 5321; 5332 |
| HaeII | RGCG!Y | 7 | 598; 829; 1525; 2692; 2700; 3428; 5103 |
| HaeIII | GG!CC | 41 | 84; 277; 655; 691; 745; 858; 1072; 1150; 1164; 1227; 1323; 1332; 1359; 1387; 1441; 1554; 1768; 1846; 1860; 1923; 2019; 2028; 2055; 2071; 2391; 2533; 3188; 3194; 3203; 3246; 3333; 3507; 3898; 3925; 4434; 4491; 4524; 4869; 5303; 5321; 5332 |
| HaeIV | GAYNNNNNRTCNNNNNNNNNNNNN! | 2 | 2100; 3621 |
| HaeIV | !NNNNNNNNNGAYNNNNNRTC | 2 | 2066; 3587 |
| HaeIV | GAYNNNNNRTCNNNNNNNNNNNNN! | 2 | 2099; 3620 |
| HaeIV | !NNNNNNNGAYNNNNNRTC | 2 | 2068; 3589 |
| HapII | C!CGG | 35 | 601; 657; 664; 669; 790; 1151; 1181; 1214; 1249; 1271; 1334; 1372; 1486; 1847; 1877; 1910; 1945; 1967; 2030; 2643; 3330; 3407; 3429; 3457; 3588; 3678; 3745; 3926; 4201; 4209; 4301; 4775; 4965; 4991; 5138 |
| HgaI | GACGCNNNNN! | 3 | 526; 4135; 4214 |
| HgaI | !NNNNNNNNNGCGTC | 3 | 2758; 4653; 5231 |
| HhaI | GCG!C | 29 | 597; 712; 828; 1234; 1236; 1408; 1524; 1930; 1932; 2691; 2699; 2725; 2747; 2756; 2769; 2800; 3419; 3427; 3491; 3528; 3794; 4054; 4230; 4316; 4719; 4828; 5002; 5102; 5169 |
| Hin1I | GR!CGYC | 9 | 122; 175; 258; 444; 826; 1522; 3425; 4127; 4206 |
| Hin1II | CATG! | 22 | 304; 364; 683; 728; 806; 1247; 1424; 1502; 1943; 2855; 2995; 3067; 3158; 3299; 3644; 3830; 3861; 3887; 4243; 4627; 5347; 5398 |
| Hin4I | GAYNNNNNVTCNNNNNNNNNNNN! | 2 | 2099; 3620 |
| Hin4I | !NNNNNNNGABNNNNNRTC | 3 | 2067; 3588; 3618 |
| Hin4I | GABNNNNNRTCNNNNNNNNNNNNN! | 3 | 2099; 3620; 3650 |
| Hin4I | !NNNNNNNGAYNNNNNVTC | 2 | 2067; 3588 |
| Hin6I | G!CGC | 29 | 595; 710; 826; 1232; 1234; 1406; 1522; 1928; 1930; 2689; 2697; 2723; 2745; 2754; 2767; 2798; 3417; 3425; 3489; 3526; 3792; 4052; 4228; 4314; 4717; 4826; 5000; 5100; 5167 |
| HinP1I | G!CGC | 29 | 595; 710; 826; 1232; 1234; 1406; 1522; 1928; 1930; 2689; 2697; 2723; 2745; 2754; 2767; 2798; 3417; 3425; 3489; 3526; 3792; 4052; 4228; 4314; 4717; 4826; 5000; 5100; 5167 |
| HincII | GTY!RAC | 2 | 641; 2188 |
| HindII | GTY!RAC | 2 | 641; 2188 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|-----------------|-------|--|
| HindIII | A!AGCTT | 1 | 622 |
| HinfI | G!ANTC | 15 | 410; 604; 808; 1504; 2076; 2468; 2490; 2900; 3910; 4044; 4096; 4154; 4191; 4973; 5369 |
| HpaI | GTT!AAC | 1 | 2188 |
| HpaII | C!CGG | 35 | 601; 657; 664; 669; 790; 1151; 1181; 1214; 1249; 1271; 1334; 1372; 1486; 1847; 1877; 1910; 1945; 1967; 2030; 2643; 3330; 3407; 3429; 3457; 3588; 3678; 3745; 3926; 4201; 4209; 4301; 4775; 4965; 4991; 5138 |
| HphI | GGTGANNNNNNNN! | 7 | 376; 695; 1049; 1391; 1745; 4496; 4612 |
| HphI | !NNNNNNNTCACC | 6 | 938; 1253; 1634; 1949; 2542; 3603 |
| Hpy8I | GTN!NAC | 17 | 201; 539; 577; 641; 740; 893; 1046; 1124; 1436; 1589; 1742; 1820; 2188; 2472; 2489; 2544; 5031 |
| Hpy99I | CGWCG! | 11 | 777; 1071; 1473; 1767; 3515; 3543; 3837; 3852; 4129; 4514; 5247 |
| Hpy166II | GTN!NAC | 17 | 201; 539; 577; 641; 740; 893; 1046; 1124; 1436; 1589; 1742; 1820; 2188; 2472; 2489; 2544; 5031 |
| Hpy188I | TCN!GA | 12 | 585; 609; 2599; 3208; 3392; 3736; 4089; 4190; 4669; 4803; 5156; 5234 |
| Hpy188III | TC!NNGA | 28 | 613; 664; 716; 986; 1277; 1412; 1682; 1973; 2080; 2852; 2904; 3217; 3270; 3443; 3759; 3768; 3851; 3907; 3951; 4041; 4074; 4143; 4624; 4698; 4781; 4879; 4977; 5111 |
| HpyAV | CCTTCNNNNNN! | 9 | 794; 848; 896; 1490; 1544; 1592; 4070; 4177; 4856 |
| HpyAV | !NNNNNGAAGG | 19 | 692; 1034; 1163; 1217; 1289; 1349; 1388; 1730; 1859; 1913; 1985; 2045; 2658; 3553; 4282; 4298; 4481; 4798; 5108 |
| HpyCH4III | ACN!GT | 15 | 76; 198; 269; 543; 581; 737; 1433; 2516; 3805; 3921; 4029; 4352; 4843; 5313; 5384 |
| HpyCH4IV | A!CGT | 18 | 122; 134; 175; 258; 339; 444; 814; 1156; 1510; 1852; 2485; 2497; 2540; 2650; 3541; 3728; 4509; 4642 |
| HpyCH4V | TG!CA | 21 | 636; 893; 1046; 1589; 1742; 2174; 2201; 2269; 2986; 2995; 3058; 3067; 3182; 3258; 3317; 3476; 3651; 3665; 4735; 5031; 5398 |
| HpyF3I | C!TNAG | 7 | 606; 2905; 3207; 4088; 4537; 4660; 5069 |
| HpyF10VI | GCNNNNN!NNGC | 41 | 90; 212; 244; 283; 376; 400; 799; 874; 1015; 1144; 1216; 1233; 1280; 1329; 1495; 1570; 1711; 1840; 1912; 1929; 1976; 2025; 2652; 2682; 2709; 2751; 2992; 3064; 3115; 3194; 3416; 3500; 3523; 3662; 3785; 3868; 4135; 4322; 4526; 4725; 5297 |
| Hsp92I | GR!CGYC | 9 | 122; 175; 258; 444; 826; 1522; 3425; 4127; 4206 |
| Hsp92II | CATG! | 22 | 304; 364; 683; 728; 806; 1247; 1424; 1502; 1943; 2855; 2995; 3067; 3158; 3299; 3644; 3830; 3861; 3887; 4243; 4627; 5347; 5398 |
| HspAI | G!CGC | 29 | 595; 710; 826; 1232; 1234; 1406; 1522; 1928; 1930; 2689; 2697; 2723; 2745; 2754; 2767; 2798; 3417; 3425; 3489; 3526; 3792; 4052; 4228; 4314; 4717; 4826; 5000; 5100; 5167 |
| KasI | G!GCGCC | 3 | 825; 1521; 3424 |
| KfI | GG!GWCCC | 0 | |
| KpnI | GGTAC!C | 0 | |
| Kpn2I | T!CCGGA | 1 | 663 |
| KspI | CCGC!GG | 1 | 652 |
| Ksp22I | T!GATCA | 0 | |
| KspAI | GTT!AAC | 1 | 2188 |
| Kzo9I | !GATC | 27 | 585; 609; 660; 907; 1027; 1189; 1365; 1603; 1723; 1885; 2082; 3262; 3266; 3285; 3596; 3674; 3755; 3764; 3842; 4218; 4234; 4593; 4605; 4683; 4691; 4702; 4777 |
| LguI | GCTCTCN! | 0 | |
| LguI | !NNNNGAAGAGC | 2 | 3769; 3979 |
| LpnI | RG!GCGY | 7 | 596; 827; 1523; 2690; 2698; 3426; 5101 |
| LpnPI | CCDGNNNNNNNNNN! | 83 | 102; 295; 614; 670; 705; 803; 846; 867; 962; 999; 1019; 1038; 1121; 1164; 1179; 1194; 1220; 1251; 1284; 1337; 1359; 1385; 1401; 1499; 1542; 1563; 1658; 1695; 1715; 1734; 1817; 1860; 1875; 1890; 1916; 1947; 1980; 2033; 2055; 2162; 2467; 2656; 2879; 2917; 2933; 2973; 3028; 3045; 3145; 3230; 3343; 3420; 3442; 3465; 3601; 3615; 3634; 3691; 3758; 3808; 3824; 3881; 3939; 4148; 4214; 4238; 4314; 4403; 4506; 4539; 4770; 4788; 4934; 4954; 4978; 5004; 5053; 5151; 5196; 5226; 5305; 5330; 5367 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|------------------------------|-------|---|
| LpnPI | !NNNNNNNNNNNNNNCHGG | 71 | 75; 268; 552; 586; 642; 775; 840; 866; 935; 984; 1085; 1136; 1166; 1199; 1234; 1256; 1319; 1357; 1471; 1536; 1562; 1631; 1680; 1781; 1832; 1862; 1895; 1930; 1952; 2015; 2508; 2628; 2685; 2748; 2946; 2958; 3018; 3030; 3262; 3307; 3350; 3392; 3414; 3442; 3489; 3551; 3573; 3663; 3730; 3753; 3797; 3892; 3911; 3936; 4085; 4186; 4229; 4286; 4376; 4479; 4506; 4524; 4760; 4797; 4950; 4976; 5116; 5134; 5169; 5250; 5303 |
| Lsp1109I | GCAGCNNNNNNNN! | 8 | 889; 1585; 2213; 3498; 3540; 4061; 4514; 5014 |
| Lsp1109I | !NNNNNNNNNNNNNGCTGC | 10 | 852; 1270; 1548; 1966; 2707; 3372; 3556; 3649; 4715; 4921 |
| LweI | GCATCNNNNN! | 10 | 721; 991; 1417; 1687; 2241; 3004; 3076; 3724; 3788; 4063 |
| LweI | !NNNNNNNNNGATGC | 7 | 357; 1270; 1966; 3383; 3638; 3854; 5246 |
| MabI | A!CCWGGT | 1 | 3014 |
| MaeI | C!TAG | 8 | 592; 2080; 2274; 2692; 3248; 4263; 4597; 4850 |
| MaeII | A!CGT | 18 | 122; 134; 175; 258; 339; 444; 814; 1156; 1510; 1852; 2485; 2497; 2540; 2650; 3541; 3728; 4509; 4642 |
| MaeIII | !GTNAC | 14 | 61; 148; 497; 815; 1511; 2213; 2714; 2726; 3545; 3851; 4541; 4807; 4923; 4986 |
| MalI | GA!TC | 27 | 587; 611; 662; 909; 1029; 1191; 1367; 1605; 1725; 1887; 2084; 3264; 3268; 3287; 3598; 3676; 3757; 3766; 3844; 4220; 4236; 4595; 4607; 4685; 4693; 4704; 4779 |
| MaqI | CRTTGACNNNNNNNNNNNNNNNNNNNN! | 4 | 144; 197; 466; 540 |
| MaqI | !NNNNNNNNNNNNNNNNNNNGTCAAYG | 3 | 157; 240; 426 |
| MauBI | CG!CGCGCG | 0 | |
| MbiI | CCG!CTC | 2 | 2849; 4038 |
| MbiI | GAG!CGG | 6 | 688; 1093; 1384; 1789; 2685; 4092 |
| MboI | !GATC | 27 | 585; 609; 660; 907; 1027; 1189; 1365; 1603; 1723; 1885; 2082; 3262; 3266; 3285; 3596; 3674; 3755; 3764; 3842; 4218; 4234; 4593; 4605; 4683; 4691; 4702; 4777 |
| MboII | GAAGANNNNNNNN! | 9 | 1094; 1301; 1790; 1997; 2681; 2909; 3786; 3996; 4615 |
| MboII | !NNNNNNNTCTTC | 6 | 911; 1607; 4076; 4243; 4443; 4686 |
| McaTI | GCGC!GC | 2 | 1235; 1931 |
| MfeI | C!AATTG | 1 | 2175 |
| MfiI | R!GATCY | 13 | 585; 609; 660; 907; 1365; 1603; 3596; 3842; 4234; 4593; 4605; 4691; 4702 |
| MhiI | GDGCH!C | 18 | 620; 657; 735; 895; 1048; 1108; 1431; 1591; 1744; 1804; 2616; 3371; 3464; 3538; 3728; 3790; 4500; 5033 |
| MisI | TGG!CCA | 1 | 3507 |
| MluI | A!CGCGT | 0 | |
| MluNI | TGG!CCA | 1 | 3507 |
| MlyI | GAGTCNNNNN! | 2 | 2477; 2909 |
| MlyI | !NNNNNGACTC | 6 | 404; 598; 2070; 2484; 4090; 4967 |
| Mly113I | GG!CGCC | 3 | 826; 1522; 3425 |
| MmeI | TCCRACNNNNNNNNNNNNNNNNNNNN! | 1 | 2518 |
| MmeI | !NNNNNNNNNNNNNNNNNNNGTYGGA | 2 | 4950; 5134 |
| MniI | CCTCNNNNNNN! | 7 | 2144; 3208; 4026; 4232; 4546; 4916; 5240 |
| MniI | !NNNNNGAGG | 30 | 541; 722; 755; 815; 932; 965; 1007; 1109; 1313; 1418; 1451; 1511; 1628; 1661; 1703; 1805; 2009; 2061; 2104; 2569; 2900; 3178; 3221; 3236; 3276; 3340; 3476; 3833; 4263; 5166 |
| Mph1103I | ATGCA!T | 3 | 2997; 3069; 5400 |
| MreI | CG!CCGGCG | 0 | |
| MroI | T!CCGGA | 1 | 663 |
| MroNI | G!CCGGC | 5 | 789; 1485; 2642; 3925; 4208 |
| MroXI | GAANN!NNTTC | 0 | |
| MscI | TGG!CCA | 1 | 3507 |
| MseI | T!TAA | 15 | 7; 2126; 2187; 2308; 2329; 2340; 2352; 2363; 2380; 2478; 2749; 4568; 4582; 4587; 4639 |
| MslI | CAYNN!NNRTG | 7 | 365; 681; 717; 1116; 1413; 1812; 3862 |
| MspI | C!CGG | 35 | 601; 657; 664; 669; 790; 1151; 1181; 1214; 1249; 1271; 1334; 1372; 1486; 1847; 1877; 1910; 1945; 1967; 2030; 2643; 3330; 3407; 3429; 3457; 3588; 3678; 3745; 3926; 4201; 4209; 4301; 4775; 4965; 4991; 5138 |
| Msp20I | TGG!CCA | 1 | 3507 |
| MspA1I | CMG!CKG | 5 | 651; 2923; 3531; 4760; 5005 |
| MspCI | C!TTAAG | 1 | 2307 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|------------------|-------|---|
| MspJI | CNNRNNNNNNNNNN! | 281 | 36; 50; 71; 97; 113; 127; 147; 167; 219; 236; 251; 290; 306; 319; 332; 352; 373; 407; 424; 449; 481; 500; 523; 548; 574; 596; 613; 627; 640; 657; 670; 692; 708; 723; 737; 767; 802; 815; 832; 845; 866; 881; 902; 916; 935; 948; 961; 979; 998; 1011; 1037; 1059; 1074; 1088; 1112; 1126; 1140; 1163; 1178; 1193; 1219; 1232; 1245; 1260; 1276; 1289; 1313; 1331; 1345; 1358; 1372; 1385; 1404; 1419; 1433; 1463; 1498; 1511; 1528; 1541; 1562; 1577; 1598; 1612; 1631; 1644; 1657; 1675; 1694; 1707; 1733; 1755; 1770; 1784; 1808; 1822; 1836; 1859; 1874; 1889; 1915; 1928; 1941; 1956; 1972; 1985; 2009; 2027; 2041; 2054; 2068; 2085; 2098; 2113; 2132; 2149; 2162; 2203; 2217; 2230; 2248; 2286; 2301; 2319; 2360; 2384; 2404; 2422; 2443; 2466; 2498; 2513; 2535; 2553; 2566; 2587; 2604; 2617; 2630; 2646; 2659; 2689; 2704; 2729; 2747; 2760; 2775; 2799; 2813; 2837; 2862; 2878; 2916; 2932; 2971; 2985; 2999; 3027; 3043; 3057; 3071; 3100; 3113; 3134; 3143; 3165; 3195; 3211; 3229; 3259; 3282; 3306; 3330; 3349; 3377; 3403; 3419; 3432; 3455; 3469; 3489; 3502; 3516; 3535; 3549; 3562; 3578; 3593; 3606; 3622; 3637; 3653; 3678; 3697; 3713; 3726; 3739; 3757; 3771; 3785; 3801; 3823; 3839; 3858; 3880; 3896; 3919; 3938; 3952; 3968; 3982; 4002; 4018; 4031; 4053; 4086; 4100; 4120; 4133; 4147; 4201; 4214; 4237; 4250; 4269; 4286; 4313; 4349; 4382; 4401; 4426; 4447; 4474; 4487; 4504; 4518; 4533; 4549; 4609; 4634; 4650; 4672; 4685; 4699; 4730; 4744; 4769; 4787; 4802; 4815; 4834; 4847; 4862; 4891; 4910; 4928; 4953; 4968; 4987; 5003; 5022; 5040; 5056; 5070; 5089; 5116; 5139; 5161; 5180; 5195; 5208; 5225; 5245; 5272; 5285; 5304; 5329; 5352; 5366; 5379; 5396 |
| MspJI | !NNNNNNNNNNNNYNG | 232 | 8; 35; 59; 76; 97; 123; 145; 168; 197; 221; 269; 281; 310; 330; 347; 377; 400; 437; 465; 492; 511; 531; 553; 574; 593; 612; 636; 655; 678; 695; 723; 741; 772; 789; 807; 826; 848; 867; 891; 909; 935; 955; 972; 992; 1011; 1033; 1060; 1086; 1114; 1132; 1152; 1173; 1193; 1215; 1234; 1256; 1287; 1305; 1332; 1357; 1374; 1391; 1419; 1437; 1468; 1485; 1503; 1522; 1544; 1563; 1587; 1605; 1631; 1651; 1668; 1688; 1707; 1729; 1756; 1782; 1810; 1828; 1848; 1869; 1889; 1911; 1930; 1952; 1983; 2001; 2028; 2051; 2077; 2106; 2135; 2177; 2260; 2295; 2322; 2345; 2374; 2418; 2440; 2472; 2508; 2525; 2546; 2583; 2603; 2620; 2637; 2672; 2690; 2708; 2725; 2749; 2771; 2798; 2826; 2852; 2890; 2911; 2928; 2946; 2969; 2990; 3018; 3041; 3062; 3080; 3101; 3118; 3141; 3165; 3185; 3203; 3225; 3256; 3278; 3304; 3323; 3340; 3368; 3387; 3406; 3424; 3442; 3463; 3485; 3509; 3542; 3562; 3580; 3601; 3627; 3654; 3671; 3688; 3705; 3731; 3753; 3775; 3793; 3813; 3832; 3854; 3892; 3912; 3936; 3956; 3976; 4003; 4027; 4060; 4079; 4107; 4129; 4158; 4186; 4211; 4230; 4249; 4270; 4287; 4304; 4335; 4362; 4382; 4405; 4425; 4462; 4479; 4498; 4524; 4544; 4583; 4610; 4629; 4647; 4684; 4702; 4743; 4761; 4787; 4804; 4836; 4865; 4893; 4914; 4937; 4956; 4977; 4995; 5012; 5030; 5056; 5077; 5097; 5117; 5135; 5156; 5182; 5199; 5218; 5237; 5266; 5285; 5303; 5322; 5340; 5358; 5381 |
| MspR9I | CC!NGG | 31 | 90; 283; 657; 658; 855; 950; 999; 1011; 1249; 1334; 1372; 1373; 1551; 1646; 1695; 1707; 1945; 2030; 2961; 3016; 3033; 3429; 3589; 3812; 4202; 4391; 4494; 4966; 5184; 5197; 5318 |
| MssI | GTTT!AAAC | 0 | |
| MunI | C!AATTG | 1 | 2175 |
| MvaI | CC!WGG | 19 | 90; 283; 855; 950; 999; 1011; 1551; 1646; 1695; 1707; 2961; 3016; 3033; 3812; 4391; 4494; 5184; 5197; 5318 |
| Mva1269I | GAATGCN! | 1 | 2176 |
| Mva1269I | G!CATTC | 1 | 2269 |
| MvnI | CG!CG | 18 | 60; 651; 1234; 1930; 2074; 2349; 2725; 2745; 2769; 2800; 3491; 3792; 4230; 4314; 4377; 4446; 4719; 5300 |
| MvrI | CGAT!CG | 0 | |
| MwoI | GCNNNNN!NNGC | 41 | 90; 212; 244; 283; 376; 400; 799; 874; 1015; 1144; 1216; 1233; 1280; 1329; 1495; 1570; 1711; 1840; 1912; 1929; 1976; 2025; 2652; 2682; 2709; 2751; 2992; 3064; 3115; 3194; 3416; 3500; 3523; 3662; 3785; 3868; 4135; 4322; 4526; 4725; 5297 |
| NaeI | GCC!GGC | 5 | 791; 1487; 2644; 3927; 4210 |
| NarI | GG!CGCC | 3 | 826; 1522; 3425 |
| NciI | CC!SGG | 12 | 657; 658; 1249; 1334; 1372; 1373; 1945; 2030; 3429; 3589; 4202; 4966 |
| NcoI | C!CATGG | 4 | 360; 679; 3154; 3857 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|---------------------------|-------|---|
| NdeI | CA!TATG | 1 | 234 |
| NdeII | !GATC | 27 | 585; 609; 660; 907; 1027; 1189; 1365; 1603; 1723; 1885; 2082; 3262; 3266; 3285; 3596; 3674; 3755; 3764; 3842; 4218; 4234; 4593; 4605; 4683; 4691; 4702; 4777 |
| NgoAVIII | GACNNNNNTGANNNNNNNNNNNN! | 1 | 280 |
| NgoAVIII | !NNNNNNNNNNNTCANNNNNGTC | 0 | |
| NgoAVIII | TCANNNNNGTCNNNNNNNNNNNN! | 0 | |
| NgoAVIII | !NNNNNNNNNNNGACNNNNNTGA | 1 | 244 |
| NgoMIV | G!CCGGC | 5 | 789; 1485; 2642; 3925; 4208 |
| NheI | G!CTAGC | 1 | 591 |
| NlaIII | CATG! | 22 | 304; 364; 683; 728; 806; 1247; 1424; 1502; 1943; 2855; 2995; 3067; 3158; 3299; 3644; 3830; 3861; 3887; 4243; 4627; 5347; 5398 |
| NlaIV | GGN!NCC | 34 | 467; 655; 662; 734; 794; 827; 859; 1052; 1073; 1105; 1185; 1275; 1430; 1490; 1523; 1555; 1748; 1769; 1801; 1881; 1971; 2580; 2601; 2613; 2804; 2965; 3037; 3426; 3461; 4309; 4388; 4433; 5276; 5315 |
| NlaCI | CATCACNNNNNNNNNNNNNNNNNN! | 3 | 2257; 2572; 4164 |
| NlaCI | !NNNNNNNNNNNNNNNNNGTGATG | 6 | 347; 1059; 1140; 1755; 1836; 5236 |
| Nli3877I | CYCGR!G | 10 | 617; 660; 940; 1132; 1354; 1375; 1636; 1828; 2050; 2069 |
| NmeAIII | GCCGAGNNNNNNNNNNNNNNNNNN! | 4 | 929; 1625; 3214; 3650 |
| NmeAIII | !NNNNNNNNNNNNNNNNNNCTCGGC | 1 | 3179 |
| NmeDI | RCCGGYNNNNNNNN! | 9 | 680; 801; 1192; 1497; 1888; 2654; 3756; 3937; 4220 |
| NmeDI | !NNNNNNNNNNNNRCCGGY | 9 | 655; 776; 1167; 1472; 1863; 2629; 3731; 3912; 4195 |
| NmuCI | !GTSAC | 5 | 815; 1511; 2714; 3545; 3851 |
| NotI | GC!GGCCGC | 0 | |
| NruI | TCG!CGA | 0 | |
| NsbI | TGC!GCA | 3 | 711; 1407; 3527 |
| NsiI | ATGCA!T | 3 | 2997; 3069; 5400 |
| NspI | RCATG!Y | 4 | 2995; 3067; 3830; 5347 |
| NspV | TT!CGAA | 2 | 627; 4107 |
| OliI | CACNN!NNGTG | 3 | 681; 1116; 1812 |
| PabI | GTA!C | 19 | 220; 245; 300; 333; 384; 541; 724; 874; 1126; 1306; 1318; 1339; 1420; 1570; 1822; 2002; 2014; 2035; 3732 |
| PacI | TTAAT!TAA | 0 | |
| PaeI | GCATG!C | 3 | 2995; 3067; 3830 |
| PaeR7I | C!TCGAG | 2 | 613; 2065 |
| PagI | T!CATGA | 2 | 2851; 4623 |
| PalAI | GG!CGCGCC | 0 | |
| PasI | CC!CWGGG | 2 | 4390; 4493 |
| PauI | G!CGCGC | 2 | 1232; 1928 |
| PceI | AGG!CCT | 1 | 3246 |
| PciI | A!CATGT | 1 | 5343 |
| PciSI | GCTCTCN! | 0 | |
| PciSI | !NNNNGAAGAGC | 2 | 3769; 3979 |
| PcsI | WCGNNNN!NNNCGW | 10 | 1306; 1324; 2002; 2020; 3719; 3796; 4039; 4113; 4506; 5024 |
| PctI | GAATGCN! | 1 | 2176 |
| PctI | G!CATTC | 1 | 2269 |
| PdiI | GCC!GGC | 5 | 791; 1487; 2644; 3927; 4210 |
| PdmI | GAANN!NNTTC | 0 | |
| PfeI | G!AWTC | 7 | 808; 1504; 3910; 4044; 4154; 4191; 5369 |
| Pfl23II | C!GTACG | 0 | |
| PfIFI | GACN!NNGTC | 1 | 3543 |
| PfIMI | CCANNNN!NTGG | 0 | |
| PfoI | T!CCNGGA | 1 | 4200 |
| PhoI | GG!CC | 41 | 84; 277; 655; 691; 745; 858; 1072; 1150; 1164; 1227; 1323; 1332; 1359; 1387; 1441; 1554; 1768; 1846; 1860; 1923; 2019; 2028; 2055; 2071; 2391; 2533; 3188; 3194; 3203; 3246; 3333; 3507; 3898; 3925; 4434; 4491; 4524; 4869; 5303; 5321; 5332 |
| PinAI | A!CCGGT | 1 | 668 |
| PlaDI | CATCAGNNNNNNNNNNNNNNNNNN! | 1 | 3806 |
| PlaDI | !NNNNNNNNNNNNNNNNNNCTGATG | 2 | 3371; 3626 |
| PleI | GAGTCNNNN! | 2 | 2476; 2908 |
| PleI | !NNNNNGACTC | 6 | 404; 598; 2070; 2484; 4090; 4967 |
| Ple19I | CGAT!CG | 0 | |
| PmaCI | CAC!GTG | 2 | 815; 1511 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|------------------------------|-------|---|
| PmeI | GTTT!AAAC | 0 | |
| PmlI | CAC!GTG | 2 | 815; 1511 |
| PpiI | GAACNNNNNCTCNNNNNNNNNNNNNN! | 1 | 2507 |
| PpiI | !NNNNNNNNNGAGNNNNNGTTC | 1 | 4637 |
| PpiI | GAGNNNNNGTTCNNNNNNNNNNNN! | 1 | 4669 |
| PpiI | !NNNNNNNGAACNNNNNCTC | 1 | 2475 |
| PpsI | GAGTCNNNN! | 2 | 2476; 2908 |
| PpsI | !NNNNNGACTC | 6 | 404; 598; 2070; 2484; 4090; 4967 |
| Ppu10I | A!TGCAT | 3 | 2993; 3065; 5396 |
| Ppu21I | YAC!GTR | 5 | 340; 815; 1511; 2541; 3729 |
| PpuMI | RG!GWCCY | 2 | 883; 1579 |
| PscI | A!CATGT | 1 | 5343 |
| PshAI | GACNN!NNGTC | 0 | |
| PshBI | AT!TAAT | 1 | 7 |
| PsiI | TTA!TAA | 2 | 2208; 2413 |
| Psp03I | GGWC!C | 5 | 669; 886; 1582; 3944; 4389 |
| Psp5II | RG!GWCCY | 2 | 883; 1579 |
| Psp6I | !CCWGG | 19 | 88; 281; 853; 948; 997; 1009; 1549; 1644; 1693; 1705; 2959; 3014; 3031; 3810; 4389; 4492; 5182; 5195; 5316 |
| Psp1406I | AA!CGTT | 0 | |
| Psp124BI | GAGCT!C | 1 | 620 |
| PspCI | CAC!GTG | 2 | 815; 1511 |
| PspEI | G!GTNACC | 0 | |
| PspGI | !CCWGG | 19 | 88; 281; 853; 948; 997; 1009; 1549; 1644; 1693; 1705; 2959; 3014; 3031; 3810; 4389; 4492; 5182; 5195; 5316 |
| PspLI | C!GTACG | 0 | |
| PspN4I | GGN!NCC | 34 | 467; 655; 662; 734; 794; 827; 859; 1052; 1073; 1105; 1185; 1275; 1430; 1490; 1523; 1555; 1748; 1769; 1801; 1881; 1971; 2580; 2601; 2613; 2804; 2965; 3037; 3426; 3461; 4309; 4388; 4433; 5276; 5315 |
| PspOMI | G!GGCCC | 1 | 653 |
| PspOMII | CGCCCARNNNNNNNNNNNNNNNNNNNN! | 3 | 125; 3155; 4154 |
| PspOMII | !NNNNNNNNNNNNNNNNNNNYTGGGCG | 1 | 3557 |
| PspPI | G!GNCC | 20 | 83; 276; 654; 666; 857; 883; 1071; 1163; 1331; 1553; 1579; 1767; 1859; 2027; 2532; 3941; 4386; 4432; 4490; 4523 |
| PspPPI | RG!GWCCY | 2 | 883; 1579 |
| PspPRI | CCYAGNNNNNNNNNNNNNNNN! | 3 | 2978; 3050; 4556 |
| PspPRI | !NNNNNNNNNNNNNNNNCTGRGG | 2 | 2891; 4086 |
| PspXI | VC!TCGAGB | 1 | 2065 |
| PsrI | GAACNNNNNTACNNNNNNNNNNNN! | 2 | 764; 1460 |
| PsrI | !NNNNNNNGTANNNNNNGTTC | 0 | |
| PsrI | GTANNNNNNGTTCNNNNNNNNNNNN! | 0 | |
| PsrI | !NNNNNNNGAACNNNNNNTAC | 2 | 732; 1428 |
| PssI | RGGNC!CY | 3 | 886; 1582; 4526 |
| PstI | CTGCA!G | 1 | 638 |
| PstNI | CAGNN!CTG | 4 | 1283; 1979; 4526; 4934 |
| PsuI | R!GATCY | 13 | 585; 609; 660; 907; 1365; 1603; 3596; 3842; 4234; 4593; 4605; 4691; 4702 |
| PsyI | GACN!NNGTC | 1 | 3543 |
| PteI | G!CGCGC | 2 | 1232; 1928 |
| PvuI | CGAT!CG | 0 | |
| PvuII | CAG!CTG | 2 | 2923; 3531 |
| RcaI | T!CATGA | 2 | 2851; 4623 |
| RceI | CATCGACNNNNNNNNNNNNNNNNNN! | 1 | 3940 |
| RceI | !NNNNNNNNNNNNNNNNNGTCGATG | 0 | |
| RgaI | GCGAT!CGC | 0 | |
| RigI | GGCCGG!CC | 0 | |
| RleAI | CCCACANNNNNNNNNNNNNN! | 1 | 2154 |
| RleAI | !NNNNNNNNNTGTGGG | 0 | |
| RpaBI | CCCGCAGNNNNNNNNNNNNNNNNNN! | 0 | |
| RpaBI | !NNNNNNNNNNNNNNNNNNCTGCGGG | 0 | |
| RpaB5I | CGRGGACNNNNNNNNNNNNNNNNNN! | 2 | 997; 1693 |
| RpaB5I | !NNNNNNNNNNNNNNNNNGTCCYCG | 0 | |
| RruI | TCG!CGA | 0 | |
| RsaI | GT!AC | 19 | 219; 244; 299; 332; 383; 540; 723; 873; 1125; 1305; 1317; 1338; 1419; 1569; 1821; 2001; 2013; 2034; 3731 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|---|-------|--|
| RsaNI | G!TAC | 19 | 218; 243; 298; 331; 382; 539; 722; 872; 1124; 1304; 1316; 1337; 1418; 1568; 1820; 2000; 2012; 2033; 3730 |
| RseI | CAYNN!NNRTG | 7 | 365; 681; 717; 1116; 1413; 1812; 3862 |
| RsrII | CG!GWCCG | 2 | 666; 3941 |
| Rsr2I | CG!GWCCG | 2 | 666; 3941 |
| SacI | GAGCT!C | 1 | 620 |
| SacII | CCGC!GG | 1 | 652 |
| SalI | G!TCGAC | 1 | 639 |
| SapI | GCTCTTCN! | 0 | |
| SapI | !NNNNGAAGAGC | 2 | 3769; 3979 |
| SaqAI | T!TAA | 15 | 7; 2126; 2187; 2308; 2329; 2340; 2352; 2363; 2380; 2478; 2749; 4568; 4582; 4587; 4639 |
| SatI | GC!NGC | 45 | 689; 866; 878; 980; 1094; 1097; 1148; 1284; 1385; 1562; 1574; 1676; 1790; 1793; 1844; 1980; 2072; 2202; 2721; 2743; 2757; 3195; 3334; 3386; 3397; 3487; 3492; 3529; 3570; 3657; 3660; 3663; 3899; 3995; 4036; 4050; 4164; 4503; 4518; 4729; 4935; 4938; 5003; 5146; 5301 |
| Sau96I | G!GNCC | 20 | 83; 276; 654; 666; 857; 883; 1071; 1163; 1331; 1553; 1579; 1767; 1859; 2027; 2532; 3941; 4386; 4432; 4490; 4523 |
| Sau3AI | !GATC | 27 | 585; 609; 660; 907; 1027; 1189; 1365; 1603; 1723; 1885; 2082; 3262; 3266; 3285; 3596; 3674; 3755; 3764; 3842; 4218; 4234; 4593; 4605; 4683; 4691; 4702; 4777 |
| SbfI | CCTGCA!GG | 0 | |
| ScaI | AGT!ACT | 2 | 1305; 2001 |
| SchI | GAGTCNNNNN! | 2 | 2477; 2909 |
| SchI | !NNNNNGACTC | 6 | 404; 598; 2070; 2484; 4090; 4967 |
| SciI | CTC!GAG | 2 | 615; 2067 |
| ScrFI | CC!NGG | 31 | 90; 283; 657; 658; 855; 950; 999; 1011; 1249; 1334; 1372; 1373; 1551; 1646; 1695; 1707; 1945; 2030; 2961; 3016; 3033; 3429; 3589; 3812; 4202; 4391; 4494; 4966; 5184; 5197; 5318 |
| SdaI | CCTGCA!GG | 0 | |
| SdeAI | CAGRAGNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN! | 4 | 3003; 3075; 3244; 5186 |
| SdeAI | !NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNCTYCTG | 2 | 3580; 4065 |
| SdeOSI | GACNNNNRTGANNNNNNNNNNNNNNNNNNNNN! | 1 | 279 |
| SdeOSI | !NNNNNNNNNNNTCAYNNNNNGTC | 0 | |
| SdeOSI | TCAYNNNNNGTCNNNNNNNNNNNNNNNNNNNN! | 0 | |
| SdeOSI | !NNNNNNNNNNNGACNNNNNRTGA | 1 | 245 |
| SduI | GDGCH!C | 18 | 620; 657; 735; 895; 1048; 1108; 1431; 1591; 1744; 1804; 2616; 3371; 3464; 3538; 3728; 3790; 4500; 5033 |
| SelI | !CGCG | 18 | 58; 649; 1232; 1928; 2072; 2347; 2723; 2743; 2767; 2798; 3489; 3790; 4228; 4312; 4375; 4444; 4717; 5298 |
| SetI | ASST! | 79 | 125; 137; 178; 261; 308; 342; 447; 552; 568; 620; 626; 817; 888; 933; 951; 969; 1039; 1045; 1120; 1159; 1174; 1189; 1212; 1315; 1348; 1513; 1584; 1629; 1647; 1665; 1735; 1741; 1816; 1855; 1870; 1885; 1908; 2011; 2044; 2115; 2136; 2145; 2157; 2206; 2373; 2488; 2500; 2543; 2580; 2630; 2653; 2777; 2925; 3020; 3213; 3326; 3454; 3533; 3544; 3616; 3687; 3731; 3991; 4137; 4181; 4512; 4543; 4602; 4645; 4788; 4809; 4908; 5045; 5060; 5079; 5091; 5135; 5181; 5232 |
| SexAI | A!CCWGGT | 1 | 3014 |
| SfaAI | GCGAT!CGC | 0 | |
| SfaNI | GCATCNNNNN! | 10 | 721; 991; 1417; 1687; 2241; 3004; 3076; 3724; 3788; 4063 |
| SfaNI | !NNNNNNNNNNNGATGC | 7 | 357; 1270; 1966; 3383; 3638; 3854; 5246 |
| SfcI | C!TRYAG | 4 | 634; 2760; 4887; 5078 |
| SfiI | GGCCNNNN!NGGCC | 3 | 1329; 2025; 3200 |
| SfoI | GGC!GCC | 3 | 827; 1523; 3426 |
| Sfr274I | C!TCGAG | 2 | 613; 2065 |
| Sfr303I | CCGC!GG | 1 | 652 |
| SfuI | TT!CGAA | 2 | 627; 4107 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|--------------------|-------|---|
| SgeI | CNNGNNNNNNNNNN! | 230 | 6; 36; 71; 97; 123; 223; 236; 252; 290; 307; 336; 373; 407; 426; 491; 548; 579; 604; 625; 662; 676; 692; 704; 728; 749; 767; 802; 815; 833; 866; 881; 902; 917; 935; 948; 961; 983; 998; 1011; 1037; 1059; 1074; 1088; 1112; 1127; 1140; 1163; 1178; 1193; 1219; 1232; 1245; 1260; 1283; 1313; 1331; 1345; 1358; 1383; 1400; 1424; 1445; 1463; 1498; 1511; 1529; 1562; 1577; 1598; 1613; 1631; 1644; 1657; 1679; 1694; 1707; 1733; 1755; 1770; 1784; 1808; 1823; 1836; 1859; 1874; 1889; 1915; 1928; 1941; 1956; 1979; 2009; 2027; 2041; 2054; 2077; 2092; 2132; 2161; 2203; 2286; 2360; 2444; 2466; 2498; 2535; 2553; 2572; 2587; 2629; 2646; 2663; 2698; 2712; 2729; 2751; 2775; 2799; 2864; 2878; 2916; 2932; 2972; 2985; 3004; 3027; 3044; 3057; 3076; 3106; 3127; 3144; 3167; 3202; 3229; 3260; 3282; 3308; 3330; 3349; 3377; 3413; 3432; 3455; 3469; 3489; 3502; 3516; 3535; 3549; 3568; 3600; 3614; 3627; 3653; 3684; 3697; 3714; 3731; 3745; 3762; 3780; 3795; 3823; 3839; 3858; 3880; 3896; 3919; 3938; 3963; 3982; 4002; 4029; 4053; 4086; 4105; 4133; 4147; 4213; 4237; 4252; 4275; 4296; 4313; 4361; 4388; 4402; 4431; 4455; 4488; 4505; 4525; 4538; 4551; 4609; 4636; 4655; 4685; 4710; 4730; 4744; 4769; 4787; 4824; 4862; 4891; 4919; 4933; 4953; 4968; 4989; 5003; 5022; 5040; 5056; 5096; 5116; 5143; 5161; 5182; 5195; 5208; 5225; 5249; 5272; 5304; 5329; 5356; 5378 |
| SgeI | !NNNNNNNNNNNNNCNNG | 194 | 10; 45; 71; 97; 197; 226; 264; 281; 310; 347; 381; 400; 465; 522; 553; 578; 599; 636; 655; 678; 702; 723; 741; 776; 799; 819; 840; 867; 891; 909; 935; 957; 984; 1011; 1033; 1060; 1086; 1114; 1137; 1167; 1193; 1215; 1234; 1257; 1287; 1305; 1332; 1357; 1374; 1398; 1419; 1437; 1472; 1495; 1515; 1536; 1563; 1587; 1605; 1631; 1653; 1680; 1707; 1729; 1756; 1782; 1810; 1833; 1863; 1889; 1911; 1930; 1953; 1983; 2001; 2028; 2051; 2106; 2135; 2177; 2260; 2334; 2418; 2440; 2472; 2509; 2527; 2546; 2603; 2620; 2637; 2672; 2690; 2710; 2730; 2749; 2773; 2838; 2890; 2946; 2978; 3001; 3018; 3050; 3080; 3101; 3118; 3141; 3176; 3203; 3234; 3256; 3282; 3304; 3323; 3351; 3387; 3406; 3429; 3450; 3468; 3485; 3509; 3542; 3574; 3601; 3627; 3658; 3688; 3705; 3731; 3754; 3775; 3797; 3817; 3837; 3854; 3893; 3912; 3937; 3956; 3976; 4003; 4027; 4060; 4079; 4107; 4129; 4187; 4211; 4230; 4249; 4270; 4287; 4335; 4362; 4382; 4405; 4429; 4462; 4479; 4499; 4525; 4583; 4610; 4629; 4659; 4684; 4704; 4743; 4761; 4798; 4836; 4865; 4893; 4914; 4942; 4963; 4996; 5014; 5070; 5090; 5117; 5135; 5156; 5182; 5199; 5223; 5246; 5278; 5303; 5330; 5352; 5381 |
| SgfI | GCGAT!CGC | 0 | |
| SgrAI | CR!CCGGYG | 0 | |
| SgrBI | CCGC!GG | 1 | 652 |
| SgrDI | CG!TCGACG | 0 | |
| SgsI | GG!CGCGCC | 0 | |
| SimI | GG!GTC | 4 | 27; 2572; 4359; 5152 |
| SimI | !GACCC | 5 | 106; 641; 3853; 4421; 4669 |
| SinI | G!GWCC | 5 | 666; 883; 1579; 3941; 4386 |
| SlaI | C!TCGAG | 2 | 613; 2065 |
| SmaI | CCC!GGG | 2 | 658; 1373 |
| SmiI | ATTT!AAAT | 0 | |
| SmiMI | CAYNN!NNRTG | 7 | 365; 681; 717; 1116; 1413; 1812; 3862 |
| SmlI | C!TYRAG | 8 | 613; 619; 2065; 2307; 3816; 4698; 4975; 5237 |
| SmoI | C!TYRAG | 8 | 613; 619; 2065; 2307; 3816; 4698; 4975; 5237 |
| SmuI | CCCGCNNNN! | 10 | 93; 119; 286; 1070; 1766; 2747; 3102; 3123; 4319; 4451 |
| SmuI | !NNNNNNGCGGG | 6 | 644; 2678; 3548; 4085; 4223; 4370 |
| SnaBI | TAC!GTA | 1 | 340 |
| SpeI | A!CTAGT | 0 | |
| SphI | GCATG!C | 3 | 2995; 3067; 3830 |
| SrfI | GCCC!GGGC | 0 | |
| Sse9I | !AATT | 11 | 18; 629; 2175; 2239; 2317; 2343; 2354; 3001; 3073; 3165; 4583 |
| Sse8387I | CTGCA!GG | 0 | |
| Sse8647I | AG!GWCCCT | 2 | 883; 1579 |
| SseBI | AGG!CCT | 1 | 3246 |
| SsiI | C!CGC | 39 | 58; 86; 98; 112; 279; 507; 589; 649; 901; 991; 1063; 1597; 1687; 1759; 2072; 2740; 2743; 2757; 2847; 3095; 3107; 3116; 3128; 3138; 3149; 3195; 3334; 3397; 3899; 3944; 4010; 4036; 4161; 4164; 4312; 4444; 4751; 4895; 5391 |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|--------------------------------|-------|--|
| SsiI | G!CGG | 36 | 370; 403; 528; 651; 688; 979; 1093; 1096; 1147; 1286; 1384; 1675; 1789; 1792; 1843; 1982; 2685; 2712; 2800; 2910; 3491; 3555; 3656; 3659; 3939; 3994; 4092; 4230; 4377; 4517; 4760; 5005; 5126; 5145; 5272; 5300 |
| SspI | AAT!ATT | 2 | 2333; 2886 |
| SspDI | G!GCGCC | 3 | 825; 1521; 3424 |
| SspD5I | GGTGANNNNNNNN! | 7 | 376; 695; 1049; 1391; 1745; 4496; 4612 |
| SspD5I | !NNNNNNNNNTCACC | 6 | 937; 1252; 1633; 1948; 2541; 3602 |
| SstI | GAGCT!C | 1 | 620 |
| SstII | CCGC!GG | 1 | 652 |
| SstE37I | CGAAGACNNNNNNNNNNNNNNNNNNNNNN! | 0 | |
| SstE37I | !NNNNNNNNNNNNNNNNNNNGTCTTCG | 0 | |
| Sth132I | CCCGNNNN! | 33 | 92; 118; 285; 663; 919; 943; 1069; 1081; 1135; 1255; 1340; 1357; 1378; 1615; 1639; 1765; 1777; 1831; 1951; 2036; 2053; 2624; 2746; 3101; 3122; 3435; 3838; 3977; 4048; 4318; 4450; 4680; 5118 |
| Sth132I | !NNNNNNNNCCGGG | 20 | 15; 407; 470; 643; 1364; 2625; 2677; 2778; 3505; 3547; 3580; 4084; 4193; 4222; 4369; 4473; 4504; 4957; 5001; 5209 |
| Sth302II | CC!GG | 35 | 602; 658; 665; 670; 791; 1152; 1182; 1215; 1250; 1272; 1335; 1373; 1487; 1848; 1878; 1911; 1946; 1968; 2031; 2644; 3331; 3408; 3430; 3458; 3589; 3679; 3746; 3927; 4202; 4210; 4302; 4776; 4966; 4992; 5139 |
| StrI | C!TCGAG | 2 | 613; 2065 |
| StsI | GGATGNNNNNNNNNN! | 5 | 1389; 3293; 3750; 3775; 4229 |
| StsI | !NNNNNNNNNNNNNNCATCC | 7 | 836; 968; 1253; 1532; 1664; 1949; 3097 |
| StuI | AGG!CCT | 1 | 3246 |
| StyI | C!CWGGG | 6 | 360; 679; 3154; 3247; 3857; 4262 |
| StyD4I | !CCNGG | 31 | 88; 281; 655; 656; 853; 948; 997; 1009; 1247; 1332; 1370; 1371; 1549; 1644; 1693; 1705; 1943; 2028; 2959; 3014; 3031; 3427; 3587; 3810; 4200; 4389; 4492; 4964; 5182; 5195; 5316 |
| SwaI | ATTT!AAAT | 0 | |
| TaaI | ACN!GT | 15 | 76; 198; 269; 543; 581; 737; 1433; 2516; 3805; 3921; 4029; 4352; 4843; 5313; 5384 |
| TaiI | ACGT! | 18 | 125; 137; 178; 261; 342; 447; 817; 1159; 1513; 1855; 2488; 2500; 2543; 2653; 3544; 3731; 4512; 4645 |
| TaqI | T!CGA | 19 | 614; 627; 640; 847; 1309; 1543; 2005; 2066; 2574; 3265; 3538; 3694; 3718; 3754; 3916; 4107; 4152; 4407; 5245 |
| TaqII | GACCGANNNNNNNNNN! | 5 | 834; 1530; 2445; 3462; 4130 |
| TaqII | !NNNNNNNNNTCGGTC | 1 | 4374 |
| TaqII | CACCCANNNNNNNNNN! | 2 | 810; 1506 |
| TaqII | !NNNNNNNNNTGGGTG | 3 | 172; 3329; 3921 |
| TasI | !AATT | 11 | 18; 629; 2175; 2239; 2317; 2343; 2354; 3001; 3073; 3165; 4583 |
| TatI | W!GTACW | 8 | 217; 297; 330; 381; 721; 1303; 1417; 1999 |
| TauI | GCSG!C | 26 | 691; 982; 1096; 1099; 1150; 1387; 1678; 1792; 1795; 1846; 2074; 2745; 2759; 3197; 3336; 3399; 3494; 3659; 3662; 3901; 3997; 4038; 4166; 4520; 5148; 5303 |
| TfiI | G!AWTC | 7 | 808; 1504; 3910; 4044; 4154; 4191; 5369 |
| TliI | C!TCGAG | 2 | 613; 2065 |
| Tru1I | T!TAA | 15 | 7; 2126; 2187; 2308; 2329; 2340; 2352; 2363; 2380; 2478; 2749; 4568; 4582; 4587; 4639 |
| Tru9I | T!TAA | 15 | 7; 2126; 2187; 2308; 2329; 2340; 2352; 2363; 2380; 2478; 2749; 4568; 4582; 4587; 4639 |
| TscAI | CASTGNN! | 5 | 2271; 3554; 4664; 4935; 4948 |
| TseI | G!CWGC | 19 | 865; 877; 1283; 1561; 1573; 1979; 2201; 2720; 3385; 3486; 3528; 3569; 3662; 4049; 4502; 4728; 4934; 4937; 5002 |
| TsoI | TARCCANNNNNNNNNN! | 2 | 2397; 2744 |
| TsoI | !NNNNNNNNNTGGYTA | 2 | 2202; 3954 |
| Tsp45I | !GTSAC | 5 | 815; 1511; 2714; 3545; 3851 |
| Tsp509I | !AATT | 11 | 18; 629; 2175; 2239; 2317; 2343; 2354; 3001; 3073; 3165; 4583 |
| TspDTI | ATGAANNNNNNNNNN! | 5 | 1095; 1791; 2183; 3484; 4188 |
| TspDTI | !NNNNNNNNNTTCAT | 4 | 26; 3902; 4358; 4565 |
| TspEI | !AATT | 11 | 18; 629; 2175; 2239; 2317; 2343; 2354; 3001; 3073; 3165; 4583 |
| TspGWI | ACGGANNNNNNNNNN! | 1 | 4300 |
| TspGWI | !NNNNNNNNNTCCGT | 0 | |
| TspMI | C!CCGGG | 2 | 656; 1371 |
| TspRI | CASTGNN! | 5 | 2271; 3554; 4664; 4935; 4948 |
| TstI | CACNNNNNNNTCCNNNNNNNNNN! | 0 | |

| Enzyme name | Sequence | Count | Cutting Position (the base to the left of the cut site) |
|-------------|--------------------------|-------|---|
| TstI | !NNNNNNNGGANNNNNGTG | 0 | |
| TstI | GGANNNNNGTGNNNNNNNNNNNN! | 0 | |
| TstI | !NNNNNNNNCACNNNNNTCC | 0 | |
| Tth111I | GACN!NNGTC | 1 | 3543 |
| Tth111II | CAARCANNNNNNNNNN! | 3 | 939; 1635; 4752 |
| Tth111III | !NNNNNNNNNTGYTTG | 3 | 3860; 4720; 4759 |
| UnbI | !GGNCC | 20 | 82; 275; 653; 665; 856; 882; 1070; 1162; 1330; 1552; 1578; 1766; 1858; 2026; 2531; 3940; 4385; 4431; 4489; 4522 |
| Van91I | CCANNNN!NTGG | 0 | |
| Vha464I | C!TTAAG | 1 | 2307 |
| VneI | G!TGCAC | 5 | 891; 1044; 1587; 1740; 5029 |
| VpaK11AI | !GGWCC | 5 | 665; 882; 1578; 3940; 4385 |
| VpaK11BI | G!GWCC | 5 | 666; 883; 1579; 3941; 4386 |
| VspI | AT!TAAT | 1 | 7 |
| XagI | CCTNN!NNNAGG | 2 | 696; 1392 |
| XapI | R!AATTY | 4 | 629; 2239; 2343; 2354 |
| XbaI | T!CTAGA | 1 | 2079 |
| XceI | RCATG!Y | 4 | 2995; 3067; 3830; 5347 |
| XcmI | CCANNNN!NNNTGG | 2 | 1115; 1811 |
| XhoI | C!TCGAG | 2 | 613; 2065 |
| XhoII | R!GATCY | 13 | 585; 609; 660; 907; 1365; 1603; 3596; 3842; 4234; 4593; 4605; 4691; 4702 |
| XmaI | C!CCGGG | 2 | 656; 1371 |
| XmaJI | C!CTAGG | 2 | 3247; 4262 |
| XmiI | GT!MKAC | 1 | 640 |
| XmnI | GAANN!NNTTC | 0 | |
| XspI | C!TAG | 8 | 592; 2080; 2274; 2692; 3248; 4263; 4597; 4850 |
| ZraI | GAC!GTC | 4 | 123; 176; 259; 445 |
| ZrmI | AGT!ACT | 2 | 1305; 2001 |
| Zsp2I | ATGCA!T | 3 | 2997; 3069; 5400 |