



General Description

DNA pentr5'_topo_verA

Entire molecule length: 2680 bp

Restriction/Methylation Map

Enzyme	# of cuts	Positions
Acil	23	43 64 71 114(c) 138 148 204(c) 238 324(c) 337 375 384(c) 908(c) 912 1105 2083 2092(c) 2227 2337(c) 2458(c) 2477(c) 2604(c) 2632(c)
Acsi	4	695 713 1113 1297
AcyI	1	328
AfIII	2	555 704
AfIII	3	231 1979 2675
AluI	13	57 175 560 589 892 900 952 966 1949 2118 2375 2421 2511
Alw44I	1	2361
AlwI	5	1362(c) 1757 2029(c) 2031 2117
AlwNI	1	2266
Apal	1	568
ApaLI	1	2361
ApoI	4	695 713 1113 1297
AseI	4	167 226 883 1699
AsnI	4	167 226 883 1699
Asp700	1	884
AspEI	1	550
AspHI	3	591 894 2365
AvaI	2	561 567
BanII	4	568 591 894 1155
BbsI	1	438(c)
BbvI	9	85 103 184 887(c) 975 2047(c) 2253(c) 2256(c) 2346
BfaI	4	241 507 895 2182
BfrI	2	555 704
BmyI	5	568 591 894 1155 2365
BpuAI	1	438(c)
BsaHI	1	328
BsaJI	4	582 1371 1773 2515
BsaWI	3	1635 2322 2469
BsiEI	4	85 912 1500 2341
BsiHKA I	3	591 894 2365
BsiYI	9	154 346 1414 1746 1763 2197 2476

		2642 2660
Bsll	9	154 346 1414 1746 1763 2197 2476 2642 2660
BsmAl	2	983 1516
BsmFl	1	1951
BsmI	2	1384(c) 1461(c)
Bsp120I	1	564
Bsp1286I	5	568 591 894 1155 2365
BspHI	2	1024 1951
BspWI	9	63 130 214 969 1212 1244 1458 2057 2629
BsrBI	2	66(c) 377(c)
BsrDI	2	656 998(c)
BsrFI	1	1454
BsrGI	1	729
BsrI	9	201 442(c) 524(c) 550(c) 1291 1915 2148 2260(c) 2273(c)
BstNI	9	246 311 479 960 1390 1747 2516 2529 2650
BstUI	11	150 152 233 498 914 1107 1157 1502 1981 2051 2632
BstYI	3	1749 2023 2034
Cfol	14	91 124 152 217 1215 1437 1454 1524 1945 2051 2160 2334 2434 2501
Cfr10I	1	1454
Csp6I	3	235 730 1334
Ddel	7	298 398 454 856 1517 1992 2401
Dpnl	7	1369 1499 1751 2017 2025 2036 2111
DpnII	7	1367 1497 1749 2015 2023 2034 2109
DrdI	1	2573
Dsal	1	582
DsaV	13	244 309 346 379 477 958 1371 1388 1745 2296 2514 2527 2648
Eael	3	156 547 909
Eagl	1	909
Eam1105I	1	550
EarI	3	112(c) 244(c) 1313
Ecl136II	2	589 892
EclXI	1	909

Eco57I	1	2133(c)
EcoNI	1	1412
EcoRI	2	695 713
EcoRII	9	244 309 477 958 1388 1745 2514 2527 2648
EcoRV	1	918
Esp3I	1	1516
Fnu4HI	15	71 74 92 173 901 909 912 964 1105 2061 2267 2270 2335 2478 2633
FnuDII	11	150 152 233 498 914 1107 1157 1502 1981 2051 2632
FokI	5	262(c) 298 527 1138 1744(c)
HaeII	2	125 2435
HaeIII	15	158 274 290 351 440 549 566 911 972 1104 1587 2201 2635 2653 2664
Hgal	4	317(c) 1970(c) 1985(c) 2563(c)
HgiAI	3	591 894 2365
Hhal	14	91 124 152 217 1215 1437 1454 1524 1945 2051 2160 2334 2434 2501
HinP1I	14	89 122 150 215 1213 1435 1452 1522 1943 2049 2158 2332 2432 2499
HincII	2	502 574
HindII	2	502 574
Hinfl	10	21 96 161 931 1411 1467 1639 1724 1730 2305
Hpal	2	502 574
HpaII	9	347 381 1373 1455 1636 2107 2297 2323 2470
HphI	6	403(c) 1350(c) 1429 1625(c) 1669 1789
Ital	15	71 74 92 173 901 909 912 964 1105 2061 2267 2270 2335 2478 2633
Ksp632I	3	112(c) 244(c) 1313
MaeI	4	241 507 895 2182
MaeII	5	365 533 752 1096 1970
MaeIII	13	526 619 837 869 994 1260 1352 1647

		1904 1975 2139 2255 2318
Mbol	7	1367 1497 1749 2015 2023 2034 2109
Mboll	7	129 261 438(c) 1300(c) 1411 2018(c) 2170(c)
Mcrl	4	85 912 1500 2341
MIul	2	231 1979
Mnll	10	101(c) 151 354 1094(c) 1316 1683(c) 1783 2248 2498(c) 2572
Msel	13	167 226 501 556 573 705 779 883 1111 1490 1699 1895 1967
MspA1I	3	175 2092 2337
Mspl	9	347 381 1373 1455 1636 2107 2297 2323 2470
Mval	9	246 311 479 960 1390 1747 2516 2529 2650
Mvnl	11	150 152 233 498 914 1107 1157 1502 1981 2051 2632
Mwol	9	63 130 214 969 1212 1244 1458 2057 2629
Ncil	4	348 381 1373 2298
Ncol	1	582
Ndel	1	831
Ndell	7	1367 1497 1749 2015 2023 2034 2109
Nhel	2	240 506
NlaIII	10	514 586 945 1028 1125 1237 1352 1657 1955 2679
NlaIV	4	566 691 2608 2647
NotI	1	909
Nrul	1	1157
Nsil	2	1350 1616
Nspl	1	2679
PfIMI	1	1763
PleI	4	104 939 1732 2299(c)
Ppu10I	2	1346 1612
Psp1406I	1	365
PstI	1	905
Pvul	1	1500
Pvull	1	175

Rcal	2	1024 1951
Rsal	3	236 731 1335
Sacl	2	591 894
Sapl	1	112(c)
Sau3AI	7	1367 1497 1749 2015 2023 2034 2109
Sau96I	5	349 439 564 565 971
ScrFI	13	246 311 348 381 479 960 1373 1390 1747 2298 2516 2529 2650
SfaNI	9	296(c) 464(c) 1116(c) 1200(c) 1335(c) 1422(c) 1542(c) 1853(c) 2578(c)
Sfcl	5	875 901 924 2219 2410
Snol	1	2361
SspBI	1	729
Sspl	1	1425
Styl	1	582
TaqI	6	717 888 1099 1465 1868 2577
Tfil	6	21 161 1411 1467 1639 1730
Thal	11	150 152 233 498 914 1107 1157 1502 1981 2051 2632
Tru9I	13	167 226 501 556 573 705 779 883 1111 1490 1699 1895 1967
Tsp509I	14	223 639 695 713 781 880 884 1113 1297 1479 1696 1846 1888 1896
Van91I	1	1763
XbaI	1	894
XhoII	3	1749 2023 2034
XmaIII	1	909
XmnI	1	884

No cuts: AatI, AatII, Acc65I, AccI, AccIII, AgeI, AoiI, AscI, Asp718, AspI, AsuII, AvaII, AviII, AvrII, BamHI, BanI, BbrPI, BcgI, BclI, BglI, BglII, BlnI, BpmI, BpuI 102I, BsaAI, BsaBI, BsaI, BseAI, BsgI, BsiWI, BspDI, BspEI, BspMI, BssHII, BstI 107I, BstBI, BstEII, BstXI, Bsu36I, CelII, ClaI, Csp45I, DraI, DraII, DraIII, Eco47III, EcoO109I, EspI, FspI, HindIII, KasI, KpnI, KspI, Mami, MfeI, MluNI, MroI, MscI, MslI, MunI, NaeI, NarI, NgoMI, NspV, PacI, PaeR7I, PinAI, PmaCI, PmeI, PmlI, PpuMI, RsrII, SacII, Sall, Scal, SexAI, SfiI, SfuI, SgrAI, SmaI, SnaBI, SpeI, SphI, StuI, SwaI, Tth111I, XcmI, XhoI, XmaI