



General Description

DNA pcr8gwtopo\_verA

Entire molecule length: 2817 bp

Restriction/Methylation Map

Enzyme	# of cuts	Positions
Acil	31	43 64 71 114(c) 138 148 204(c) 238 324(c) 337 375 384(c) 1105(c) 1125(c) 1293(c) 1390 1402(c) 1469(c) 1532 1728(c) 1731(c) 1809 1856 2220 2229(c) 2364 2474(c) 2595(c) 2614(c) 2741(c) 2769(c)
Acsl	3	672 690 2025
AcyI	2	328 1336
AfIII	2	555 681
AfIII	3	231 2116 2812
AluI	14	57 175 560 702 804 843 857 1046 1476 1590 1962 2255 2512 2648
Alw44I	2	1557 2498
AlwI	5	1740(c) 1771 2166(c) 2168 2254
AlwNI	1	2403
Apal	1	568
ApaLI	2	1557 2498
ApoI	3	672 690 2025
Asel	2	167 226
AsnI	2	167 226
AspEI	1	550
AspHI	2	1561 2502
AvaI	3	561 1174 2078
AvaII	2	1081 1722
BanII	1	568
BbsI	1	438(c)
BbvI	16	85 103 184 866 946(c) 949(c) 1114 1199 1243 1259 1631 1892(c) 2184(c) 2390(c) 2393(c) 2483
Bcgl	2	975 1239(c)
BclI	1	1480
BfaI	5	241 507 926 1963 2319
BfrI	2	555 681
BglI	1	1914
BmyI	3	568 1561 2502

Bpml	1	1534
Bpu1102I	1	1591
BpuAI	1	438(c)
BsaAI	1	2039
BsaHI	2	328 1336
BsaJI	9	967 990 1173 1204 1511 1575 1714 2056 2652
BsaWI	3	1748 2459 2606
BsiEI	3	85 1663 2478
BsiHKAI	2	1561 2502
BsiYI	7	154 346 1861 2334 2613 2779 2797
BsII	7	154 346 1861 2334 2613 2779 2797
BsmAI	1	874
BsmFI	1	1838(c)
Bsp120I	1	564
Bsp1286I	3	568 1561 2502
BspHI	1	1282
BspMI	1	1629(c)
BspWI	13	63 130 214 860 1193 1200 1299 1601 1914 1968 2007 2194 2766
BsrBI	2	66(c) 377(c)
BsrDI	4	633 889(c) 1631 1924
BsrFI	2	1878 1931
BsrGI	2	652 709
BsrI	12	201 442(c) 524(c) 550(c) 1016(c) 1083 1821 1917 1937(c) 2285 2397(c) 2410(c)
BssHII	1	2006
BstEII	1	1442
BstNI	9	246 311 479 851 936 1513 2653 2666 2787
BstUI	14	150 152 233 498 1196 1469 1534 1597 1890 2006 2008 2118 2188 2769
BstYI	3	1763 2160 2171
CellI	1	1591
Cfol	22	91 124 152 217 1069 1119 1196 1348 1536 1597 1624 1778 1872 1892 1927 2008 2010 2188 2297 2471 2571 2638
Cfr10I	2	1878 1931

Csp6I	7	235 653 710 1161 1374 1382 1865
Ddel	6	298 398 454 1591 2129 2538
Dpnl	13	1299 1482 1662 1672 1747 1765 1993 2014 2052 2154 2162 2173 2248
DpnII	13	1297 1480 1660 1670 1745 1763 1991 2012 2050 2152 2160 2171 2246
Drall	1	565
DrallI	3	991 1419 2039
DrdI	1	2710
Dsal	3	990 1204 1575
DsaV	13	244 309 346 379 477 849 934 975 1511 2433 2651 2664 2785
EaeI	3	156 547 1369
Eam1105I	1	550
EarI	2	112(c) 244(c)
Eco57I	2	1428 2270(c)
EcoO109I	1	565
EcoRI	2	672 690
EcoRII	9	244 309 477 849 934 1511 2651 2664 2785
EcoRV	1	809
Espl	1	1591
Fnu4HI	23	71 74 92 173 855 960 963 1103 1188 1232 1248 1403 1470 1620 1729 1809 1906 2198 2404 2407 2472 2615 2770
FnuDII	14	150 152 233 498 1196 1469 1534 1597 1890 2006 2008 2118 2188 2769
FokI	8	262(c) 298 527 784(c) 1013 1166(c) 1410 1911
Haell	5	125 1349 1779 1928 2572
HaellI	16	158 274 290 351 440 549 566 863 1371 1405 1935 2001 2338 2772 2790

		2801
Hgal	6	317(c) 991 1325(c) 2107(c) 2122(c) 2700(c)
HgiAI	2	1561 2502
Hhal	22	91 124 152 217 1069 1119 1196 1348 1536 1597 1624 1778 1872 1892 1927 2008 2010 2188 2297 2471 2571 2638
HinP1I	22	89 122 150 215 1067 1117 1194 1346 1534 1595 1622 1776 1870 1890 1925 2006 2008 2186 2295 2469 2569 2636
HincII	1	502
HindII	1	502
Hinfl	7	21 96 161 822 1313 1526 2442
Hpal	1	502
HpaII	10	347 381 976 1749 1879 1932 2244 2434 2460 2607
HphI	6	403(c) 991 1307 1454 1538(c) 2045(c)
Ital	23	71 74 92 173 855 960 963 1103 1188 1232 1248 1403 1470 1620 1729 1809 1906 2198 2404 2407 2472 2615 2770
Ksp632I	2	112(c) 244(c)
MaeI	5	241 507 926 1963 2319
MaeII	6	365 533 1362 1848 2038 2107
MaeIII	16	526 596 764 885 979 1110 1197 1241 1436 1442 1544 1874 2112 2276 2392 2455
MboI	13	1297 1480 1660 1670 1745 1763 1991 2012 2050 2152 2160 2171 2246
MbolI	8	129 261 438(c) 1637(c) 1998 2001 2034 2155(c)
McrI	3	85 1663 2478

MluI	2	231 2116
MnII	16	101(c) 151 354 930 933 959 1183 1279(c) 1319(c) 1727(c) 1766(c) 2012 2087 2385 2635(c) 2709
MseI	8	167 226 501 556 682 1275 1791 2104
MspII	1	1554
MspA1I	6	175 804 1105 1728 2229 2474
MspI	10	347 381 976 1749 1879 1932 2244 2434 2460 2607
MvaI	9	246 311 479 851 936 1513 2653 2666 2787
MvnI	14	150 152 233 498 1196 1469 1534 1597 1890 2006 2008 2118 2188 2769
MwoI	13	63 130 214 860 1193 1200 1299 1601 1914 1968 2007 2194 2766
NaeI	1	1933
NciI	4	348 381 977 2435
NdeI	13	1297 1480 1660 1670 1745 1763 1991 2012 2050 2152 2160 2171 2246
NgoMI	1	1931
NheI	2	240 506
NlaIII	7	514 836 919 1136 1286 2092 2816
NlaIV	7	566 567 668 1388 1753 2745 2784
NspI	1	2816
PaeR7I	1	2078
PleI	4	104 830 1307(c) 2436(c)
Psp1406I	1	365
PvuI	1	1663
PvuII	2	175 804
RcaI	1	1282
RsaI	7	236 654 711 1162 1375 1383 1866
SapI	1	112(c)
Sau3AI	13	1297 1480 1660 1670 1745 1763 1991 2012 2050

		2152 2160 2171 2246
Sau96I	8	349 439 564 565 862 1081 1722 1934
ScrFI	13	246 311 348 381 479 851 936 977 1513 2435 2653 2666 2787
SfaNI	4	296(c) 464(c) 1188 2715(c)
Sfcl	4	815 1537 2356 2547
Snol	2	1557 2498
SspBI	2	652 709
Styl	3	967 1714 2056
TaqI	10	694 951 1211 1311 1342 1354 1648 1663 2079 2714
Tfil	3	21 161 1526
Thal	14	150 152 233 498 1196 1469 1534 1597 1890 2006 2008 2118 2188 2769
Tru9I	8	167 226 501 556 682 1275 1791 2104
Tsp509I	8	223 616 672 690 734 745 1605 2025
XbaI	1	925
XhoI	1	2078
XhoII	3	1763 2160 2171

No cuts: AatI, AatII, Acc65I, AccI, AccIII, AgeI, Aoi, AscI, Asp700, Asp718, AspI, AsuII, AviII, AvrII, BamHI, BanI, BbrPI, BglII, BlnI, BsaBI, BsaI, BseAI, BsgI, BsiWI, BsmI, BspDI, BspEI, Bst1107I, BstBI, BstXI, Bsu36I, ClaI, Csp45I, DraI, EagI, Ecl136II, EclXI, Eco47III, EcoNI, Esp3I, FspI, HindIII, KasI, KpnI, KspI, Maml, MfeI, MluNI, MroI, MscI, MunI, NarI, NcoI, NdeI, NotI, NruI, NsiI, NspV, PacI, PflMI, PinAI, PmaCI, PmeI, PmlI, Ppu10I, PpuMI, PstI, RsrII, SacI, SacII, Sall, Scal, SexAI, SfiI, SfuI, SgrAI, SmaI, SnaBI, SpeI, SphI, SspI, StuI, SwaI, Tth111I, Van91I, XcmI, XmaI, XmaIII, XmnI