



General Description

DNA pPICZα A

Entire molecule length: 3593 bp

Restriction Map

| Enzyme | # of cuts | Positions |
|--------|-----------|---|
| AatI | 1 | 2568 |
| AatII | 1 | 2210 |
| Acc65I | 1 | 1242 |
| AccI | 1 | 1316 |
| Acil | 26 | 321 657 988 1253 1255(c) 1258(c) 1262 1676(c) 1747 1864 2093(c) 2198 2218(c) 2317(c) 2369(c) 2472(c) 2550(c) 2652 2910 2938 3065 3084 3205 3315(c) 3450 3459(c) |
| AcsI | 7 | 747 1036 1209 1792 1902 1929 2751 |
| AcyI | 2 | 2207 2426 |
| AfIII | 3 | 2538 2776 2865 |
| AgeI | 1 | 1397 |
| AluI | 17 | 207 318 798 838 875 996 1050 1206 1268 1536 1563 1697 2382 2854 3033 3169 3426 |
| Alw44I | 3 | 623 2509 3179 |
| AlwI | 8 | 1245 1307 1673(c) 1686 2570(c) 3426(c) 3512(c) 3514 |
| AlwNI | 1 | 3281 |
| ApaLI | 3 | 623 2509 3179 |
| ApoI | 7 | 747 1036 1209 1792 1902 1929 2751 |
| Asel | 2 | 583 2106 |
| AsnI | 2 | 583 2106 |
| Asp718 | 1 | 1242 |
| AspHI | 5 | 209 627 2195 2513 3183 |
| AsuII | 1 | 934 |
| AvaI | 4 | 1185 1247 2242 2252 |
| Avall | 8 | 61 132 2231 2286 2319 2325 2560 2695 |
| BamHI | 1 | 1678 |
| BanI | 2 | 1242 2334 |
| BanII | 1 | 209 |
| BbrPI | 1 | 1216 |

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| Bbsl | 2 | 1400 1985(c) |
| Bbvl | 11 | 122 785(c) 983(c) 990 1148(c) 1572 2472 3194(c) 3284 3287 3493 |
| BcII | 2 | 741 1545 |
| Bfal | 6 | 107 1273 1407 1813 2692 3360 |
| BgII | 4 | 279 1226 1258 2469 |
| BgIII | 1 | 2 |
| Bmyl | 6 | 209 627 1385 2195 2513 3183 |
| Bpml | 3 | 327(c) 985(c) 2876 |
| Bpu1102I | 1 | 589 |
| BpuAI | 2 | 1400 1985(c) |
| BsaAI | 1 | 1216 |
| BsaBI | 2 | 1414 1570 |
| BsaHI | 2 | 2207 2426 |
| Bsal | 3 | 1655(c) 1854(c) 2852(c) |
| BsaJI | 13 | 277 618 1253 2162 2252 2348 2354 2464 2522 2555 2563 2569 3025 |
| BsaWI | 4 | 1397 2187 3071 3218 |
| BsiEI | 6 | 1230 1262 2222 2238 2498 3205 |
| BsiHKAI | 5 | 209 627 2195 2513 3183 |
| BsiWI | 1 | 1529 |
| BsiYI | 14 | 191 283 350 525 663 2328 2354 2355 2360 2570 2887 2905 3071 3350 |
| BsII | 14 | 191 283 350 525 663 2328 2354 2355 2360 2570 2887 2905 3071 3350 |
| BsmAI | 6 | 603 686 1237 1655(c) 1854(c) 2852(c) |
| BsmFI | 7 | 2269 2305 2437 2546(c) 2566(c) 2681(c) 2841 |
| Bsml | 3 | 313 568 1438 |
| Bsp1286I | 6 | 209 627 1385 2195 2513 3183 |
| BspHI | 2 | 738 3585 |
| BspWI | 12 | 279 987 996 1158 1226 1258 1261 1557 2199 2469 2918 3490 |
| BsrBI | 2 | 2218 2654(c) |

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| BsrDI | 1 | 1156(c) |
| BsrFI | 6 | 1225 1397 2237 2278 2436 2497 |
| BsrGI | 1 | 2769 |
| BsrI | 8 | 185(c) 497(c) 862 1002(c) 2177(c) 3273 3286 3398(c) |
| BssHII | 1 | 2200 |
| BstBI | 1 | 934 |
| BstNI | 11 | 270 279 2323 2329 2350 2355 2374 2565 2893 3014 3027 |
| BstUI | 11 | 1255 1749 2200 2202 2204 2317 2369 2489 2778 2912 3493 |
| BstXI | 1 | 707 |
| BstYI | 6 | 2 1299 1678 2575 3506 3517 |
| CellI | 1 | 589 |
| CfoI | 13 | 595 1312 1751 2202 2204 2317 2369 2489 3045 3112 3212 3386 3495 |
| Cfr10I | 6 | 1225 1397 2237 2278 2436 2497 |
| Csp45I | 1 | 934 |
| Csp6I | 8 | 1243 1530 1645 1759 1834 2385 2770 2782 |
| Ddel | 11 | 359 468 589 1064 1290 1351 1368 1445 2086 3140 3549 |
| Dpnl | 15 | 4 451 743 914 1239 1301 1547 1680 2452 2577 3433 3508 3519 3527 3592 |
| DpnII | 15 | 2 449 741 912 1237 1299 1545 1678 2450 2575 3431 3506 3517 3525 3590 |
| DraI | 1 | 414 |
| DraII | 3 | 132 2560 2695 |
| DraIII | 1 | 2517 |
| DrdI | 2 | 2539 2973 |
| Dsal | 4 | 1253 2162 2464 2555 |
| DsaV | 19 | 268 277 618 2251 2252 2288 2321 2327 2348 2353 |

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| | | 2372 2420 2431 2492 2563 2891 3012 3025 3243 |
| EaeI | 7 | 494 1227 1259 2165 2438 2495 2519 |
| EagI | 3 | 1227 1259 2495 |
| EarI | 4 | 150 1289(c) 1642 1731 |
| Ecl136II | 1 | 207 |
| EclXI | 3 | 1227 1259 2495 |
| Eco57I | 5 | 1066 1222 1623(c) 2706 3413 |
| EcoO109I | 3 | 132 2560 2695 |
| EcoRI | 1 | 1209 |
| EcoRII | 11 | 268 277 2321 2327 2348 2353 2372 2563 2891 3012 3025 |
| EcoRV | 1 | 2602 |
| Esp3I | 1 | 1237 |
| Espl | 1 | 589 |
| Fnu4HI | 19 | 111 799 979 997 1162 1253 1256 1259 1262 1561 2370 2461 2551 2910 3065 3208 3273 3276 3482 |
| FnuDII | 11 | 1255 1749 2200 2202 2204 2317 2369 2489 2778 2912 3493 |
| FokI | 8 | 32(c) 39(c) 441(c) 679 968(c) 1437 2635(c) 3589(c) |
| HaeII | 2 | 1313 3113 |
| HaeIII | 19 | 273 397 496 1220 1229 1261 2167 2353 2372 2436 2440 2497 2521 2553 2568 2880 2891 2909 3343 |
| HgaI | 5 | 2434 2784 2838 2976 3554 |
| HgiAI | 5 | 209 627 2195 2513 3183 |
| HhaI | 13 | 595 1312 1751 2202 2204 2317 2369 2489 3045 3112 3212 3386 3495 |
| HinP1I | 13 | 593 1310 1749 2200 2202 2315 2367 2487 3043 3110 3210 3384 3493 |
| HincII | 4 | 1007 1317 2100 |

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| | | 2174 |
| HindII | 4 | 1007 1317 2100 2174 |
| HindIII | 1 | 873 |
| Hinfl | 4 | 704 1410 1743 3236 |
| HpaII | 20 | 620 1041 1226 1398 2188 2213 2238 2253 2279 2289 2338 2421 2432 2437 2494 2498 3072 3219 3245 3435 |
| HphI | 2 | 2160 2187(c) |
| ItaI | 19 | 111 799 979 997 1162 1253 1256 1259 1262 1561 2370 2461 2551 2910 3065 3208 3273 3276 3482 |
| KpnI | 1 | 1246 |
| Ksp632I | 4 | 150 1289(c) 1642 1731 |
| KspI | 1 | 1256 |
| MaeI | 6 | 107 1273 1407 1813 2692 3360 |
| MaeII | 8 | 734 1215 1913 2207 2297 2540 2735 3568 |
| MaeIII | 9 | 1059 1483 1959 2298 2619 2789 3221 3284 3400 |
| MamI | 2 | 1414 1570 |
| MboI | 15 | 2 449 741 912 1237 1299 1545 1678 2450 2575 3431 3506 3517 3525 3590 |
| MboII | 14 | 137(c) 922 1032 1182 1306 1405 1515(c) 1629(c) 1662 1718(c) 1798(c) 1872(c) 1985(c) 3527 |
| McrI | 6 | 1230 1262 2222 2238 2498 3205 |
| MfeI | 1 | 865 |
| MluI | 1 | 2776 |
| MluNI | 1 | 2167 |
| MnII | 27 | 89(c) 145 153 161 277(c) 343(c) 995 1190(c) 1256 1290(c) 1377 1415(c) 1645 1810 1820 1877 1974 2144(c) 2259(c) 2394(c) 2439 2517(c) |

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| | | 2579 2649 2973(c) 3047 3297(c) |
| MscI | 1 | 2167 |
| MseI | 14 | 413 583 751 809 885 895 1655 1824 1977 1982 2106 2729 2843 3571 |
| MsiI | 1 | 77 |
| MspA1I | 4 | 1255 1563 3207 3452 |
| MspI | 20 | 620 1041 1226 1398 2188 2213 2238 2253 2279 2289 2338 2421 2432 2437 2494 2498 3072 3219 3245 3435 |
| MunI | 1 | 865 |
| MvaI | 11 | 270 279 2323 2329 2350 2355 2374 2565 2893 3014 3027 |
| MvnI | 11 | 1255 1749 2200 2202 2204 2317 2369 2489 2778 2912 3493 |
| MwoI | 12 | 279 987 996 1158 1226 1258 1261 1557 2199 2469 2918 3490 |
| NaeI | 3 | 1227 2438 2499 |
| NciI | 8 | 620 2253 2254 2290 2422 2433 2494 3245 |
| NcoI | 1 | 2162 |
| NdeI | 15 | 2 449 741 912 1237 1299 1545 1678 2450 2575 3431 3506 3517 3525 3590 |
| NgoMI | 3 | 1225 2436 2497 |
| NlaIII | 11 | 249 293 385 742 1360 2166 2445 2608 2790 2869 3589 |
| NlaIV | 11 | 274 429 862 1244 1680 2336 2561 2562 2697 2897 2936 |
| NotI | 1 | 1259 |
| NsiI | 1 | 678 |
| NspI | 2 | 2790 2869 |
| NspV | 1 | 934 |
| PaeR7I | 2 | 1185 1247 |

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| PfiMI | 1 | 191 |
| PinAI | 1 | 1397 |
| PleI | 2 | 1737(c) 3244 |
| PmaCI | 1 | 1216 |
| PmeI | 1 | 414 |
| PmlI | 1 | 1216 |
| Ppu10I | 1 | 674 |
| PpuMI | 3 | 132 2560 2695 |
| Psp1406I | 2 | 734 2735 |
| PvuII | 1 | 1563 |
| RcaI | 2 | 738 3585 |
| RsaI | 8 | 1244 1531 1646 1760 1835 2386 2771 2783 |
| SacI | 1 | 209 |
| SacII | 1 | 1256 |
| SalI | 1 | 1315 |
| Sau3AI | 15 | 2 449 741 912 1237 1299 1545 1678 2450 2575 3431 3506 3517 3525 3590 |
| Sau96I | 13 | 61 132 272 396 1219 2231 2286 2319 2325 2434 2552 2560 2695 |
| ScrFI | 19 | 270 279 620 2253 2254 2290 2323 2329 2350 2355 2374 2422 2433 2494 2565 2893 3014 3027 3245 |
| SexAI | 1 | 2327 |
| SfaNI | 4 | 990 1441(c) 1760 2962 |
| Sfcl | 2 | 3130 3321 |
| Sfil | 1 | 1226 |
| Sful | 1 | 934 |
| SgrAI | 1 | 2278 |
| Smal | 1 | 2254 |
| Snol | 3 | 623 2509 3179 |
| SspBI | 1 | 2769 |
| StuI | 1 | 2568 |
| StyI | 1 | 2162 |
| TaqI | 12 | 172 934 1084 1186 1248 1316 1602 1886 2222 2598 2834 2965 |
| TfiI | 2 | 704 1410 |
| Thal | 11 | 1255 1749 2200 2202 2204 2317 2369 2489 2778 2912 3493 |
| Tru9I | 14 | 413 583 751 809 885 |

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| | | 895 1655 1824 1977 1982 2106 2729 2843 3571 |
| Tsp509I | 17 | 219 747 849 865 927 955 1036 1209 1792 1825 1902 1929 1997 2103 2609 2751 2844 |
| Van91I | 1 | 191 |
| XbaI | 1 | 1272 |
| XcmI | 1 | 707 |
| XhoI | 2 | 1185 1247 |
| XhoII | 6 | 2 1299 1678 2575 3506 3517 |
| XmaI | 1 | 2252 |
| XmaIII | 3 | 1227 1259 2495 |

No cuts: AccIII, AflIII, AoiI, ApaI, AscI, Asp700, AspEI, AspI, AviII, AvrII, BcgI, BfrI, BlnI, BseAI, BsgI, Bsp120I, BspDI, BspEI, BspMI, Bst1107I, BstEII, Bsu36I, ClaI, Eam1105I, Eco47III, EcoNI, FspI, HpaI, KasI, MroI, NarI, NdeI, NheI, NruI, PacI, PstI, PvuI, RsrII, SapI, ScaI, SnaBI, SpeI, SphI, SspI, SwaI, Tth111I, XmnI