

General Description

DNA pcDNA5/FRT

Entire molecule length: 5070 bp

Restriction Map

Enzyme	# of cuts	Positions
AatII	6	376 429 512 698 1616 5070
Acc65I	1	918
AccI	3	2875 2882 5070
AccIII	3	1810 2347 2483
Acil	67	62 309 337 349 363 530 621(c) 654(c) 758 779(c) 979(c) 983 1012 1238(c) 1262(c) 1311(c) 1325(c) 1328(c) 1356 1383 1608 1732(c) 1797 1864 1914 1934(c) 1958(c) 1980(c) 2000 2177(c) 2215 2225(c) 2338(c) 2366 2368(c) 2389 2518 2528(c) 2640 2643 2709(c) 2945 3048 3104(c) 3114(c) 3138 3181(c) 3188(c) 3209(c) 3300 3328 3455 3474 3595 3705(c) 3840 3849(c) 4211 4302 4493(c) 4539 4660(c) 4704 4781 4890 4989(c) 5036
Acsl	4	128 953 1832 2794
Acyl	9	373 426 509 695 1613 2581 2685 4685 5067
AflII	1	909
AflIII	2	229 3255
AluI	28	136 817 892 914 926 1275 1442 1669 1701 1743 2128 2353 2418 2447 2759 2892 2898 2920 3015 3079 3197 3423 3513 3559 3816 4337 4437 4500
Alw44I	5	33 1869 2171 3569 4815
AlwI	17	13 16(c) 925(c) 938 2048(c) 2368 2475(c)

		2692(c) 2721 3816(c) 3902(c) 3904 4000(c) 4001 4464(c) 4781 4785(c)
AlwNI	2	81 3671
Aosl	1	4370
Apal	1	1002
ApaLI	5	33 1869 2171 3569 4815
Apol	4	128 953 1832 2794
Asel	5	258 863 3026 3085 4320
Asnl	5	258 863 3026 3085 4320
Asp700	1	4747
Asp718	1	918
AspEI	1	4148
AspHI	8	37 819 928 1873 2175 3573 4734 4819
Aspl	2	1649 2093
Aval	1	986
Avall	4	1997 2538 4286 4508
Avill	1	4370
BamHI	1	930
BanI	7	716 918 1094 1488 2163 2999 4096
BanII	6	819 928 1002 1247 1283 1458
BbsI	1	1218
BbvI	18	188(c) 1359 1678 1730(c) 1936 1942(c) 2329 2456 2768 3066(c) 3147(c) 3165(c) 3584(c) 3674 3677 3883 4186(c) 4577
Bcgl	1	4687
BclI	1	1016
Bfal	16	251 830 897 937 993 1038 1284 1376 1534 1565 2829 2889 2893 3750 4003 4338
BfRI	1	909
BglI	4	341 463 534 4268
BglII	1	13
BmyI	12	37 819 928 1002 1247 1283 1458 1873 2175 3573 4734 4819
BpmI	5	2257 2311 2687(c) 2744 4218(c)

BpuAI	1	1218
BsaAI	3	591 1529 2617
BsaHI	9	373 426 509 695 1613 2581 2685 4685 5067
BsaI	2	877(c) 4209(c)
BsaJI	10	611 1086 1584 1941 2142 2297 2366 2597 2994 3415
BsaWI	6	1810 2347 2483 3461 3608 4439
BseAI	3	1810 2347 2483
BsiEI	10	983 1797 1932 1953 1962 2532 3171 3595 4518 4667
BsiHKAI	8	37 819 928 1873 2175 3573 4734 4819
BsiYI	13	300 1310 1810 1873 2160 2269 2490 2710 3103 3277 3295 3461 3740
BsII	13	300 1310 1810 1873 2160 2269 2490 2710 3103 3277 3295 3461 3740
BsmAI	5	685 877(c) 1657 4209(c) 4985
BsmFI	5	426 577 745 2506 2696
Bsml	1	2824(c)
Bsp120I	1	998
Bsp1286I	12	37 819 928 1002 1247 1283 1458 1873 2175 3573 4734 4819
BspEI	3	1810 2347 2483
BspHI	2	3975 4983
BspMI	1	1902
BspWI	33	198 341 463 495 534 627 651 1235 1259 1320 1322 1364 1391 1421 1796 1863 1894 1946 1955 1977 1986 2108 2170 2323 2350 2450 2999 3043 3127 3194 3308 3880 4268
BsrBI	7	985(c) 1385(c) 1980 2338 2947(c) 3188 4989
BsrDI	2	4209 4383(c)
BsrFI	4	1424 1927 2687

		4228
BsrI	15	75(c) 546(c) 853 942(c) 2075 2240 3055(c) 3663 3676 3788(c) 4194(c) 4312(c) 4355(c) 4624 4794(c)
Bst1107I	1	2876
BstNI	7	341 534 1088 2995 3283 3404 3417
BstUI	24	121 209 231 311 1301 1325 1345 1610 1799 1934 2045 2111 2177 2326 2368 2528 2709 3102 3104 3302 3883 4213 4706 5038
BstXI	2	949 975
BstYI	9	13 930 2713 3896 3907 3993 4005 4773 4790
CfoI	29	121 201 1303 1316 1325 1347 1373 1381 1748 1801 2045 2113 2328 2455 2528 2709 3039 3104 3132 3165 3435 3502 3602 3776 3885 4278 4371 4708 5040
Cfr10I	4	1424 1927 2687 4228
Csp6I	14	44 214 469 494 549 582 633 790 919 1530 2505 2558 2618 4627
Ddel	10	40 110 181 1148 1257 1967 3530 3939 4105 4645
DpnI	27	7 15 23 932 1018 1634 1767 1952 1965 2055 2362 2482 2699 2715 3823 3898 3909 3917 3995 4007 4112 4453 4471 4517 4775 4792 4828
DpnII	27	5 13 21 930 1016 1632 1765 1950 1963 2053 2360 2480 2697 2713 3821 3896 3907

		3915 3993 4005 4110 4451 4469 4515 4773 4790 4826
DraI	5	905 1007 4014 4033 4725
DraII	1	998
DraIII	2	1877 2170
DrdI	3	2093 2474 3363
DsaI	4	611 1941 2297 2366
DsaV	13	339 532 1086 2373 2489 2679 2993 3281 3402 3415 3633 4329 4680
EaeI	8	980 1587 1794 1959 2212 2529 3094 4536
EagI	4	980 1794 1959 2529
Eam1105I	1	4148
EarI	2	3139 4943
Ecl136II	2	817 926
EclXI	4	980 1794 1959 2529
Eco57I	2	3803 4815(c)
EcoO109I	1	998
EcoRI	2	953 1832
EcoRII	7	339 532 1086 2993 3281 3402 3415
EcoRV	1	965
Esp3I	1	1657
Fnu4HI	36	62 202 980 983 1312 1326 1348 1667 1744 1797 1925 1956 1959 2215 2318 2366 2369 2445 2529 2643 2757 3080 3161 3179 3182 3300 3455 3598 3663 3666 3872 4200 4539 4566 4661 4890
FnuDII	24	121 209 231 311 1301 1325 1345 1610 1799 1934 2045 2111 2177 2326 2368 2528 2709 3102 3104 3302 3883 4213 4706 5038
FokI	7	1247 1958 2331(c) 2707 4114(c) 4295(c) 4582(c)
FspI	1	4370
HaeII	4	1374 1382 3133

		3503
HaeIII	22	220 335 528 982 1000 1589 1796 1940 1961 1989 2141 2214 2296 2531 3096 3270 3281 3299 3733 4191 4271 4538
HgaI	10	777 1639(c) 2091(c) 2332 2477 2589 2693 3366 3944 4674(c)
HgiAI	8	37 819 928 1873 2175 3573 4734 4819
HhaI	29	121 201 1303 1316 1325 1347 1373 1381 1748 1801 2045 2113 2328 2455 2528 2709 3039 3104 3132 3165 3435 3502 3602 3776 3885 4278 4371 4708 5040
HinP1I	29	119 199 1301 1314 1323 1345 1371 1379 1746 1799 2043 2111 2326 2453 2526 2707 3037 3102 3130 3163 3433 3500 3600 3774 3883 4276 4369 4706 5038
HincII	4	1 235 2425 2883
HindII	4	1 235 2425 2883
HindIII	1	912
Hinfl	15	174 661 870 989 1685 1807 2007 2258 2633 2670 3090 3155 3230 3626 4143
HpaII	20	1425 1811 1928 2161 2348 2374 2484 2490 2680 2688 2973 3462 3609 3635 3825 4229 4263 4330 4440 4682
HphI	8	627 1529 1597(c) 3991(c) 4218(c) 4634 4840(c) 4875
ItaI	36	62 202 980 983 1312 1326 1348 1667

		1744 1797 1925 1956 1959 2215 2318 2366 2369 2445 2529 2643 2757 3080 3161 3179 3182 3300 3455 3598 3663 3666 3872 4200 4539 4566 4661 4890
Kpnl	1	922
Ksp632l	2	3139 4943
Kspl	1	2369
Mael	16	251 830 897 937 993 1038 1284 1376 1534 1565 2829 2889 2893 3750 4003 4338
Maell	15	373 385 426 509 590 695 1418 1528 1613 1883 2616 3958 4374 4747 5067
Maelll	15	312 399 748 1339 1351 1879 2768 3611 3674 3790 4073 4404 4462 4615 4803
Mbol	27	5 13 21 930 1016 1632 1765 1950 1963 2053 2360 2480 2697 2713 3821 3896 3907 3915 3993 4005 4110 4451 4469 4515 4773 4790 4826
Mboll	13	183 1223 1390(c) 1694 2275(c) 2278(c) 2722(c) 3126(c) 3917 3988(c) 4743(c) 4821(c) 4930(c)
Mcrl	10	983 1797 1932 1953 1962 2532 3171 3595 4518 4667
Mfel	1	162
MIul	1	229
MIuNI	1	1589
Mnll	30	96(c) 792(c) 989(c) 1033 1075 1120(c) 1195(c) 1252(c) 1502 1669(c) 1706(c) 1930(c) 2137(c) 2177 2236(c) 2263(c) 2286(c) 2334(c) 2592(c) 2711 2896

		3104(c) 3154 3363(c) 3437 3687(c) 4087(c) 4168(c) 4315 4521
Mrol	3	1810 2347 2483
Mscl	1	1589
Msel	18	70 132 258 863 904 910 1006 1319 3026 3085 3961 4013 4018 4032 4085 4320 4359 4724
MslI	4	616 4400 4559 4918
MspA1I	9	1014 1275 1916 2225 2368 3079 3597 3842 4783
Mspl	20	1425 1811 1928 2161 2348 2374 2484 2490 2680 2688 2973 3462 3609 3635 3825 4229 4263 4330 4440 4682
MunI	1	162
Mval	7	341 534 1088 2995 3283 3404 3417
Mvnl	24	121 209 231 311 1301 1325 1345 1610 1799 1934 2045 2111 2177 2326 2368 2528 2709 3102 3104 3302 3883 4213 4706 5038
Mwol	33	198 341 463 495 534 627 651 1235 1259 1320 1322 1364 1391 1421 1796 1863 1894 1946 1955 1977 1986 2108 2170 2323 2350 2450 2999 3043 3127 3194 3308 3880 4268
Nael	2	1426 2689
Ncil	6	2375 2491 2681 3635 4331 4682
Ncol	2	611 1941
Ndel	2	485 2039
NdeII	27	5 13 21 930 1016 1632 1765 1950 1963 2053 2360 2480 2697 2713 3821 3896 3907 3915 3993 4005 4110 4451 4469 4515 4773 4790

		4826
NgoMI	2	1424 2687
NheI	1	896
NlaIII	17	171 555 615 1229 1945 2028 2063 2722 2870 2913 3259 3979 4470 4480 4558 4594 4987
NlaIV	20	718 920 932 1000 1096 1457 1469 1490 2165 2188 2372 2488 3001 3287 3326 4098 4192 4233 4444 5034
NotI	1	980
NruI	1	209
NspI	2	1229 3259
PaeR7I	1	986
PleI	6	655(c) 864(c) 997 3149(c) 3634 4137(c)
PmeI	2	905 1007
Psp1406I	2	4374 4747
PstI	2	962 1926
PvuI	2	1953 4518
PvuII	2	1275 3079
RcaI	2	3975 4983
RsaI	14	45 215 470 495 550 583 634 791 920 1531 2506 2559 2619 4628
RsrII	1	1997
SacI	2	819 928
SacII	1	2369
Sall	2	2881 5069
SapI	1	3139
Sau3AI	27	5 13 21 930 1016 1632 1765 1950 1963 2053 2360 2480 2697 2713 3821 3896 3907 3915 3993 4005 4110 4451 4469 4515 4773 4790 4826
Sau96I	13	218 334 527 998 999 1988 1997 2139 2538 4190 4269 4286 4508
Scal	2	2559 4628
ScrFI	13	341 534 1088 2375 2491 2681 2995 3283 3404 3417

		3635 4331 4682
SfaNI	17	48(c) 608(c) 1145 1225(c) 1653(c) 1799 1866 1936(c) 2121(c) 2353 2431(c) 2453(c) 2796 3352 4404 4595(c) 4844
Sfcl	7	876 958 1306 1922 3520 3711 4389
SnaBI	1	591
Snol	5	33 1869 2171 3569 4815
SpeI	2	250 936
SphI	1	1229
Sspl	1	4952
StyI	3	611 1584 1941
TaqI	17	857 987 1025 1494 1620 1635 1644 1704 2121 2334 2436 2461 2631 2882 3355 4799 5070
Tfil	9	174 1685 1807 2007 2258 2633 2670 3090 3230
Thal	24	121 209 231 311 1301 1325 1345 1610 1799 1934 2045 2111 2177 2326 2368 2528 2709 3102 3104 3302 3883 4213 4706 5038
Tru9I	18	70 132 258 863 904 910 1006 1319 3026 3085 3961 4013 4018 4032 4085 4320 4359 4724
Tsp509I	15	128 162 269 860 953 1131 1832 2431 2794 2935 2952 3027 4015 4321 4576
Tth111I	2	1649 2093
XbaI	2	992 1564
XhoI	1	986
XhoII	9	13 930 2713 3896 3907 3993 4005 4773 4790
XmaIII	4	980 1794 1959 2529
XmnI	1	4747

No cuts: AatI, AgeI, AscI, AsuII, AvrII, BbrPI, BlnI, BpuI 102I, BsaBI, BsgI, BsiWI, BspDI, BsrGI, BssHII, BstBI, BstEII, Bsu36I, CelII, ClaI, Csp45I, Eco47III, EcoNI, EspI, HpaI, KsiI, MmiI, NarI, NsiI, NspV, PacI,

PflMI, PinAI, PmaCI, PmlI, Ppu10I, PpuMI, SexAI, SfiI, SfuI, SgrAI, SmaI, SspBI, StuI, SwaI, Van91I, XcmI,
XmaI