

Sequence Range: 1 to 3725

10 20 30 40 50 60 70  
GTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATACATTCAAATATGTA  
CACCGTGAAAAGCCCCTTTACACGCGCCTTGGGGATAAACAATAAAAAAGATTTATGTAAGTTTATACAT

>Bci VI  
|  
>BspHI | >SspI | >EarI  
| | | | |  
80 90 100 110 120 130 140  
TCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGTATGAGTATTCAA  
AGGCGAGTACTCTGTTATTGGGACTATTTACGAAGTTATTATAACTTTTTCTTCTCATACTCATAAGTT

150 160 170 180 190 200 210  
CATTTCCGTGTCGCCCTTATTCCCTTTTTTGGCGCATTTTGCCTTCCTGTTTTTGTCTACCCAGAAAACGC  
GTAAAGGCACAGCGGAATAAGGGAAAAAACGCCGTAAACGGAAGGACAAAAACGAGTGGGTCTTTGGC

>Bsi HKAI  
|  
>BssSI  
||  
>ApaLI |  
| |  
220 230 240 250 260 270 280  
TGGTGAAAGTAAAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGGTTACATCGAACTGGATCTCAACAG  
ACCCTTTTCATTTTCTACGACTTCTAGTCAACCCACGTGCTCACCCAATGTAGCTTGACCTAGAGTTGTC

>XmnI | >DraI  
| |  
>Acl I | >Bsi HKAI |  
| | | |  
290 300 310 320 330 340 350  
CGGTAAGATCCTTGAGAGTTTTCGCCCCGAAGAACGTTTTTCCAATGATGAGCACTTTTAAAGTTCTGCTA  
GCCATTCTAGGAACTCTCAAAGCGGGGCTTCTTGCAAAGGTTACTACTCGTGAAAATTTCAAGACGAT

>BcgI  
|  
>BsaHI | >BcgI  
| | |  
360 370 380 390 400 410 420  
TGTGGCGCGGTATTATCCCGTATTGACGCCGGGCAAGAGCAACTCGGTCCCGCATACTACTATTCTCAGA  
ACACCGCGCCATAATAGGGCATAACTGCGGCCCGTTCTCGTTGAGCCAGCGGCGTATGTGATAAGAGTCT

>ScaI  
|  
430 440 450 460 470 480 490  
ATGACTTGTTGAGTACTCACCAGTCACAGAAAAGCATCTTACGGATGGCATGACAGTAAGAGAATTATG  
TACTGAACCAACTCATGAGTGGTCAGTGTCTTTTTCGTAGAATGCCTACCGTACTGTCTATTCTTTAATAC

>PvuI  
|  
500 510 520 530 540 550 560  
CAGTGCTGCCATAACCATGAGTGATAAACTGCGGCCAACTTACTTCTGACAACGATCGGAGGACCGAAG  
GTCACGACGGTATTGGTACTCACTATTGTGACGCCGGTTGAATGAAGACTGTTGCTAGCCTCCTGGCTTC

>BsaWI

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                    570      580      590      600      610      620      630
GAGCTAACCGCTTTTTTGCACAACATGGGGGATCATGTAACCTCGCCTTGATCGTTGGGAACCGGAGCTGA
CTCGATTGGCGAAAAAACGTGTTGTACCCCCTAGTACATTGAGCGGAACTAGCAACCCTTGGCCTCGACT

                                     >Acl I
                                     |
                                     >BsrDI | >FspI
                                     | | |
                    640      650      660      670      680 | 690 | 700
ATGAAGCCATAACAAACGACGAGCGTGACACCACGATGCCTGTAGCAATGGCAACAACGTTGCGCAAACCT
TACTTCGGTATGGTTTTGCTGCTCGCACTGTGGTGCTACGGACATCGTTACCGTTGTTGCAACGCGTTTTGA

                                     >AseI
                                     |
                    710      720      730      740 | 750      760      770
ATTAAGTGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGGCGGATAAAGTT
TAATTGACCGCTTGATGAATGAGATCGAAGGGCCGTTGTTAATTATCTGACCTACCTCCGCTATTTCAA

                                     >Bgl I
                                     |
                    780      790      800      810      820      830      840
GCAGGACCACTTCTGCGCTCGGCCCTTCCGGCTGGCTGGTTTTATTGCTGATAAATCTGGAGCCGGTGAGC
CGTCCTGGTGAAGACGCGAGCCGGGAAGGCCGACCGACCAATAACGACTATTTAGACCTCGGCCACTCG

                                     >BsaI
                                     |
                    >BpmI | >BsrDI
                    | | |
                    | 850 | 860      870      880      890      900      910
GTGGGTCTCGCGGTATCATTGCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTATCTACAC
CACCCAGAGCGCCATAGTAACGTCGTGACCCCGGTCTACCATTCCGGAGGGCATAGCATCAATAGATGTG

                                     >AhdI
                                     |
                    | 920      930      940      950      960      970      980
GACGGGGAGTCAAGCAACTATGGATGAACGAAATAGACAGATCGCTGAGATAGGTGCCTCACTGATTAAG
CTGCCCCTCAGTCCGTTGATACCTACTTGCTTTATCTGTCTAGCGACTCTATCCACGGAGTGACTAATTC

                                     >DraI
                                     |
                    990      1000      1010      1020      1030      1040      1050
CATTGGTAACTGTCAGACCAAGTTTACTCATATATACTTTAGATTGATTTAAAACCTTCATTTTTAATTTA
GTAACCATTGACAGTCTGGTTCAAATGAGTATATATGAAATCTAACTAAATTTTGAAGTAAAAATTAAT

                                     >BspHI
                                     |
                    1060      1070      1080 | 1090      1100      1110      1120
AAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAATCCCTTAACGTGAGTTTTCGTTCCA
TTTTCTAGATCCACTTCTAGGAAAAACTATTAGAGTACTGGTTTTAGGGAATTGCACTCAAAAGCAAGGT

                    1130      1140      1150      1160      1170      1180      1190
CTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTCTGCGCGTAATCTGC
GACTCGCAGTCTGGGGCATCTTTTCTAGTTTCTAGAGAAGAACTCTAGGAAAAAAGACGCGCATTAGACG

                    1200      1210      1220      1230      1240      1250      1260
TGCTTGCAAACAAAAAACACCGCTACCAGCGGTGGTTTTGTTTGCCGGATCAAGAGCTACCAACTCTTT
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ACGAACGTTTTGTTTTTTTTGGTGGCGATGGTCGCCACCAAACAAACGGCCTAGTTCTCGATGGTTGAGAAA

1270 1280 1290 1300 1310 1320 1330  
TTCCGAAGGTAAGTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTGTAGCCGTAGTTAGG  
AAGGCTTCCATTGACCGAAGTCGTCTCGCGTCTATGGTTTTATGACAGGAAGATCACATCGGCATCAATCC

>AlwNI

1340 1350 1360 1370 1380 1390 1400  
CCACCACTTCAAGAAGTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCT  
GGTGGTGAAGTTCTTGAGACATCGTGGCGGATGTATGGAGCGAGACGATTAGACAATGGTCACCGACGA

>BsaWI

1410 1420 1430 1440 1450 1460 1470  
GCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGGCGAGCGGT  
CGGTCACCGCTATTCAGCACAGAATGGCCCAACCTGAGTTCTGCTATCAATGGCCTATTCCGCGTCGCCA

>Bsi HKAI

>ApaLI

1480 1490 1500 1510 1520 1530 1540  
CGGGCTGAACGGGGGTTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCT  
GCCCCGACTTGCCCCCAAGCACGTGTGTCGGGTGCAACCTCGCTTGCTGGATGTGGCTTGACTCTATGGA

>BsaWI

>Bci VI

1550 1560 1570 1580 1590 1600 1610  
ACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGC  
TGTCGCACTCGATACTCTTTTCGCGGTGCGAAGGGCTTCCCTCTTTCCGCTGTCCATAGGCCATTCCGCC

>BssSI

1620 1630 1640 1650 1660 1670 1680  
AGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGAAACGCCTGGTATCTTTATAGTCCTGTGCG  
TCCCAGCCTTGTCTCTCGCGTGTCCCTCGAAGGTCCCCCTTTGCGGACCATAGAAATATCAGGACAGC

>DrdI

1690 1700 1710 1720 1730 1740 1750  
GGTTTTGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAA  
CCAAAGCGGTGGAGACTGAACTCGCAGCTAAAAACACTACGAGCAGTCCCCCGCCTCGGATACCTTTTT

>NspI

>Afl III

>Pci I

1760 1770 1780 1790 1800 1810 1820  
CGCCAGCAACCGGCCTTTTTACGGTTTCTGGCCTTTTTGCTGGCCTTTTGCTCACATGTTCTTTCTGCG  
GCGGTGCTTGGCGCGGAAAAATGCCAAGGACCGGAAAACGACCGGAAAACGAGTGTACAAGAAAGGACGC

1830 1840 1850 1860 1870 1880 1890  
TTATCCCCTGATTCTGTGGATAACCGTATTACCGCCTTTGAGTGAGCTGATACCGCTCGCCGAGCCGAA  
AATAGGGGACTAAGACACCTATTGGCATAATGGCGGAAACTCACTCGACTATGGCGAGCGGCGTGGCTT

>SapI  
|  
>EarI  
|  
1900 1910 1920 | 1930 1940 1950 1960  
CGACCGAGCGCAGCGAGTCAGTGAGCGAGGAAGCGGAAGAGCGCCCAATACGCAAACCGCCTCTCCCCGC  
GCTGGCTCGCGTCGCTCAGTCACTCGCTCCTTCGCTTCTCGCGGGTTATGCGTTTTGGCGGAGAGGGGCG

>AseI >PvuII  
| |  
1970 | 1980 | 1990 2000 2010 2020 2030  
GCGTTGGCCGATTCATTAATGCAGCTGGCAGACAGGTTTTCCCGACTGGAAAGCGGGCAGTGAGCGCAAC  
CGCAACCGGCTAAGTAATTACGTCGACCGTGCTGTCCAAAGGGCTGACCTTTCGCCCGTCACTCGCGTTG

>AseI  
|  
2040 2050 2060 2070 2080 2090 2100  
GCAATTAATGTGAGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTTCCGGCTCGTATGT  
CGTTAATTACTCAATCGAGTGAGTAATCCGTGGGGTCCGAAATGTGAAATACGAAGGCCGAGCATACA

>BssHII  
|  
2110 2120 2130 2140 2150 2160 | 2170  
TGTGTGGAATTGTGAGCGGATAACAATTTACACAGGAAACAGCTATGACCATGATTACGCCAAGCGCGC  
ACACACCTTAACACTCGCCTATTGTTAAAGTGTGTCCTTTGTCGATACTGGTACTAATGCGGTTTCGCGCG

>XhoI >HincII  
| |  
>Eco0109I >PaeR7I  
| |  
>KpnI | >ApaI | >AccI  
| | |  
>Acc65I | >Psp0MI | >Sal I  
| | | |  
2180 2190 2200 | 2210 | 2220 ||| 2230 2240  
AATTAACCCTCACTAAAGGGAACAAAAGCTGGGTACCGGGCCCCCCTCGAGGTCGACTAGATGAAGGAG  
TTAATTGGGAGTGATTTCCCTTGTTTTGACCCATGGCCCCGGGGGAGCTCCAGCTGATCTACTTCCCTC  
\_\_\_\_ROSA 26 PRO\_\_\_\_>

>BsrDI >BbsI  
| |  
2250 2260 2270 | 2280 2290 2300 2310  
AGCCTTCTCTCTGGGCAAGAGCGGTGCAATGGTGTGTAAAGGTAGCTGAGAAGACGAAAAGGGCAAGCA  
TCGGAAAGAGAGACCCGTTCTCGCCACGTTACCACACATTTCCATCGACTCTTCTGCTTTTCCCGTTTCGT  
-----ROSA 26 PROMOTER----->

>BseRI >BstEII  
| |  
2320 2330 2340 2350 2360 2370 2380  
TCTTCTGCTACCAGGCTGGGGAGGCCAGGCCACGACCCCGAGGAGAGGGAACGCAGGGAGACTGAGG  
AGAAGGACGATGGTCCGACCCCTCCGGGTCCGGGTGCTGGGGCTCCTCTCCCTTGCGTCCCTCTGACTCC  
-----ROSA 26 PROMOTER----->

>Eco0109I  
|  
>Psp0MI

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                |
                >SmaI
                | |
            >XmaI | >ApaI
                | | |
        2390   | 2400   | 2410   2420   2430   2440   2450
TGACCCTTCTTTCCCCGGGGCCCGGTTCGTGTGGTTCGGTGTCTCTTTTCTGTTGGACCCTTACCTTGAC
ACTGGGAAGAAAGGGGGCCCCGGGCCAGCACACCAAGCCACAGAGAAAAGACAACCTGGGAATGGAAGT
----- ROSA 26 PROMOTER ----->

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                |
                >SmaI
                |
                >ApaI
                | |
            >XmaI
                | | |
            >Psp0MI | | |
                | | |
        >AlwNI   >Eco0109I | | |
                | | |
        2460   | 2470   | | 2480   2490   |2500   2510   | 2520
CCAGGCGCTGCCGGGGCCTGGGCCCCGGGCTGCGGCGCACGGCACTCCCGGGAGGCAGCGAGACTCGAGTT
GGTCCGCGACGGCCCCGGACCCGGGCCCGACGCCGCGTGCCGTGAGGGCCCTCCGTCGCTCTGAGCTCAA
----- ROSA 26 PROMOTER ----->

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            >BstDSI
            |
            >SfoI
            | |
            >BsaHI
            | | |
            >NarI |
            | | |
            >KasI |
            | | |
        2530 | | | |2540   2550   2560   2570   2580   2590
AGGCCAACGCGGCGCCACGGCGTTTTCTGGCCGGGAATGGCCCGTACCCGTGAGGTGGGGGTGGGGGGC
TCCGGGTTGCGCCGCGGTGCCGCAAAGGACCGGCCCTTACCGGGCATGGGCACTCCACCCCCACCCCCG
----- ROSA 26 PROMOTER ----->

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                                >NaeI
                                |
                                >NgoMI V
                                | |
        2600   2610   2620   2630   2640   | 2650   2660
AGAAAAGGCGGAGCGAGCCCCGAGGCGGGGAGGGGGAGGGCCAGGGGCGGAGGGGGCCGGCACTACTGTGT
TCTTTTCCGCCTCGCTCGGGCTCCGCCCTCCCCCTCCCGGTCCCCGCCTCCCCCGGCCGTGATGACACA
----- ROSA 26 PROMOTER ----->

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                                >EagI
                                |
                                >NotI
                                |
        2670   2680   2690   2700   2710   | 2720   2730
TGGCGGACTGGCGGGACTAGGGCTGCGTGAGTCTCTGAGCGCAGGCGGGCGGGCGGCCCTCCCCCGG
ACCGCCTGACCGCCCTGATCCCGACGCACTCAGAGACTCGCGTCCGCCCGCCCGGGCGGGGAGGGGGCC
----- ROSA 26 PROMOTER ----->

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2740 2750 2760 2770 2780 2790 2800  
CGGCGGCAGCGGGCGGCAGCGGGCGGCAGCTCACTCAGCCCGCTGCCCGAGCGGAAACGCCACTGACCGCAC  
GCCGCCGTCGCCCGCGTCCGCCCGTCCGAGTGAGTCGGGGCAGCGGGCTCGCCTTTGCGGTGACTGGCGTG  
----- ROSA 26 PROMOTER ----->

>SfoI  
|  
>NarI  
||  
>BsaHI  
||  
>KasI  
|||  
>NaeI |  
|||  
>NgoMI V ||  
| |||  
2810 | 2820 2830 2840 2850 2860 2870  
GGGGATTCCCAGTGCCGGCGCCAGGGGCACGCGGGACACGCCCCCTCCCGCCGCGCCATTGGCCTCTCCG  
CCCCTAAGGGTCACGGCCGCGGTCCCCGTGCGCCCTGTGCGGGGGAGGGCGGCGCGGTAACCGGAGAGGC  
----- ROSA 26 PROMOTER ----->

>EarI  
|  
2880 2890 2900 2910 2920 2930 | 2940  
CCCACCGCCCCACACTTATTGGCCGGTGCGCCGCCAATCAGCGGAGGCTGCCGGGGCCGCCTAAAGAAGA  
GGGTGGCGGGGTGTGAATAACCGGCCACGCGGCGGTTAGTCGCCTCCGACGGCCCCGGCGGATTTCTTCT  
----- ROSA 26 PROMOTER ----->

>BseRI  
|  
2950 | 2960 2970 2980 2990 3000 3010  
GGCTGTGCTTTGGGGCTCCGGCTCCTCAGAGAGCCTCGGCTAGGTAGGGGATCGGGACTCTGGCGGGAGG  
CCGACACGAAACCCCGAGGCCGAGGAGTCTCTCGGAGCCGATCCATCCCCTAGCCCTGAGACCGCCCTCC  
----- ROSA 26 PROMOTER ----->

>BstXI  
|  
>XbaI >EagI >SacII >SacI  
| | | |  
>BamHI >SpeI | >NotI >BstDSI | >Bsi HKAI  
| | | | | | | |  
3020 3030 | 3040 | 3050 3060 || 3070 | 3080  
GCGGCTTGGTGCGTTTGGCGGGATCCACTAGTTCTAGAGCGGGCCGCCACCGCGGTGGAGCTCCAATTTCG  
CGCCGAACCACGCAAACGCCCTAGGTGATCAAGATCTCGCCGGCGGTGGCGCCACCTCGAGGTTAAGCG  
----- ROSA 26 PROMOTER ----->

>BssHII  
|  
3090 3100 | 3110 3120 3130 3140 3150  
CCTATAGTGAGTCGTATTACGCGCGCTCACTGGCCGTGTTTTTACAACGTCGTGACTGGGAAAACCTGG  
GGATATCACTCAGCATAATGCGCGGAGTGACCGGCAGCAAATGTTGCAGCACTGACCCTTTTGGGACC

>PvuII >EarI  
| |  
3160 3170 3180 3190 | 3200 | 3210 3220

