

EcoNI | NsiI
 SphI
 Ppu10 I
 | | |
 CTCGATTAGGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTA
 GAGCTAATCCCACACCTTTTCAGGGGTCCGAGGGGTCCGTCCGTCTTCATACGTTTCGTACGTAGAGTTAAT
 10 20 30 40 50 60 70

NsiI
 SphI
 Ppu10 I
 | | |
 SexAI
 |
 GTCAGCAACCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAAT
 CAGTCGTTGGTCCACACCTTTTCAGGGGTCCGAGGGGTCCGTCCGTCTTCATACGTTTCGTACGTAGAGTTA
 80 90 100 110 120 130 140

TAGTCAGCAACCATAGTCCCGCCCCTAACTCCGCCATCCCGCCCCTAACTCCGCCAGTTCCGCCATT
 ATCAGTCGTTGGTATCAGGGCGGGATTGAGGCGGGTAGGGCGGGATTGAGGCGGGTCAAGGCGGGTAA
 150 160 170 180 190 200 210

SfiI
 Bgl I
 | |
 NcoI
 |
 CTCCGCCCATGGCTGACTAATTTTTTTTATTTATGCAGAGGCCGAGGCCGCCTCGGCCTCTGAGCTATT
 GAGGCGGGTACCGACTGATTAATAAAAAATAAATACGTCTCCGGCTCCGGCGGAGCCGAGACTCGATAA
 220 230 240 250 260 270 280

AvrII
 StuI
 BseRI | ClaI | BsaBI
 | | |
 CCAGAAGTAGTGAGGAGGCTTTTTTGGAGGCCTAGGCTTTTGCAAAGATCGATCAAGAGACAGGATGAGG
 GGTCTTCATCACTCCTCCGAAAAACCTCCGGATCCGAAAAACGTTTCTAGCTAGTTCTGTCTACTCC
 290 300 310 320 330 340 350

BspMI | EagI
 | |
 ATCGTTTCGCATGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTC
 TAGCAAAGCGTACTAACTTGTTCTACCTAACGTGCGTCCAAGAGGCCGCGAACCCTCTCCGATAAG
 360 370 380 390 400 410 420

NarI
 KasI
 | |
 GGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGC
 CCGATACTGACCCGTGTTGTCTGTTAGCCGACGAGACTACGGCGGCACAAGGCCGACAGTCGCGTCCCCG
 430 440 450 460 470 480 490

BbeI
 EheI | DrdI
 | | |
 GCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCTGAATGAACTGCAAAGACGAGGCAGCGCGGCT
 CGGGCCAAGAAAAACAGTTCTGGCTGGACAGGCCACGGGACTTACTTGACGTTCTGCTCCGTCGCGCCGA
 500 510 520 530 540 550 560

MscI PvuII FspI Tth111 I

ATCGTGGCTGGCCACGACGGGCGTTCCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGAC
TAGCACCGACCGGTGCTGCCCGCAAGGAACGCGTCGACACGAGCTGCAACAGTGACTTCGCCCTTCCCTG
570 580 590 600 610 620 630

Eco57 I

TGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTTGTCTCCTGCCGAGAAAGTAT
ACCGACGATAACCCGCTTACGGCCCCGTCCTAGAGGACAGTAGAGTGGAACGAGGACGGCTCTTTCATA
640 650 660 670 680 690 700

BsrDI BspMI

CCATCATGGCTGATGCAATGCGGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGC
GGTAGTACCGACTACGTTACGCCCGGACGATGCGAACTAGGCCGATGGACGGGTAAGCTGGTGGTTTCG
710 720 730 740 750 760 770

SapI EarI

GAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAA
CTTTGTAGCGTAGCTCGCTCGTGATGAGCCTACCTTCGGCCAGAACAGCTAGTCTACTAGACCTGCTT
780 790 800 810 820 830 840

SphI

GAGCATCAGGGGCTCGCGCCAGCCGAACTGTTCCGCCAGGCTCAAGGCGAGCATGCCCGACGGCGAGGATC
CTCGTAGTCCCCGAGCGCGGTTCGGCTTGACAAGCGGTCCGAGTTCGGCTCGTACGGGCTGCCGCTCCTAG
850 860 870 880 890 900 910

NcoI

TCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTTCAT
AGCAGCACTGGGTACCGCTACGGACGAACGGCTTATAGTACCACCTTTTACCGGCGAAAAGACCTAAGTA
920 930 940 950 960 970 980

NaeI NgoMI RsrII SapI EarI

CGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAA
GCTGACACCGGCCGACCCACACCGCCTGGCGATAGTCCCTGTATCGCAACCGATGGGCACTATAACGACTT
990 1000 1010 1020 1030 1040 1050

Eco57 I BssSI BsrBI

GAGCTTGGCGGCGAATGGGCTGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCCGATTCGCAGCGCA
CTCGAACCGCCGCTTACCCGACTGGCGAAGGAGCACGAAATGCCATAGCGGCGAGGGCTAAGCGTCCGCT
1060 1070 1080 1090 1100 1110 1120

BsrBI BstBI

TCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGACTCTGGGGTTTCGAAATGACCGACCAAGCG
AGCGGAAGATAGCGGAAGAACTGCTCAAGAAGACTCGCCCTGAGACCCCAAGCTTTACTGGCTGGTTTCG
1130 1140 1150 1160 1170 1180 1190

BssSI
BspMI
|

ACGCCCCAACCTGCCATCACGAGATTTGATTCCACCGCCGCTTCTATGAAAGGTTGGGCTTCGGAATCG
 TCGGGTTGGACGGTAGTGCTCTAAAGCTAAGGTGGCGGGGAAGATACTTTCCAACCCGAAGCCTTAGC

1200 1210 1220 1230 1240 1250 1260

NaeI
NcoMI
BpmI BpmI AvrII BpmI
| | | |

TTTTCCGGGACGCCGGCTGGATGATCCTCCAGCGCGGGGATCTCATGCTGGAGTTCTTCGCCCACCCTAG
 AAAAGGCCCTGCGGCCGACCTACTAGGAGGTGCGCCCCCTAGAGTACGACCTCAAGAAGCGGGTGGGATC

1270 1280 1290 1300 1310 1320 1330

GGGGAGGCTAACTGAAACACGGAAGGAGACAATACCGGAAGGAACCCGCGCTATGACGGCAATAAAAAGA
 CCCCTCCGATTGACTTTGTGCCTTCTCTGTTATGGCCTTCTTGGGCGGATACTGCCGTTATTTTTCT

1340 1350 1360 1370 1380 1390 1400

BseRI
BsrDI
| |

CAGAATAAAACGCACGGTGTGGGTCGTTTGTTCGAGGAGCTTGGCCCATTGCATACGTTGTATCCATA
 GTCTTATTTTGCCTGCCACAACCCAGCAAACAAGCTCCTCGAACCGGGTAACGTATGCAACATAGGTAT

1410 1420 1430 1440 1450 1460 1470

BsrGI SpeI
| |

TCATAATATGTACATTTATATTGGCTCATGTCCAACATTACCGCCATGTTGACATTGATTATTGACTAGT
 AGTATTATACATGTAAATATAACCGAGTACAGGTTGTAATGGCGGTACAACGTAACTAATAACTGATCA

1480 1490 1500 1510 1520 1530 1540

AseI
|

TATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGTTCGCGTTACATAACTTA
 ATAATTATCATTAGTTAATGCCCCAGTAATCAAGTATCGGGTATATACCTCAAGGCGCAATGTATTGAAT

1550 1560 1570 1580 1590 1600 1610

Bgl I AatII
| |

CGGTAAATGGCCCGCCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCC
 GCCATTTACCGGGCGGACCGACTGGCGGGTTGCTGGGGGCGGGTAACTGCAGTTATTACTGCATACAAGG

1620 1630 1640 1650 1660 1670 1680

AatII Bgl I
| |

CATAGTAACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGCTAAACTGCCCACTTG
 GTATCATTGCGGTTATCCCTGAAAGGTAACGTGCAGTTACCCACCTCATAAATGCGATTTGACGGGTGAAC

1690 1700 1710 1720 1730 1740 1750

NdeI AatII Bgl I
| | |

GCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTCAATGACGGTAAATGGCCCCGCT
 CGTCATGTAGTTCACATAGTATACGGTTCATGCGGGGATAACTGCAGTTACTGCCATTTACCGGGCGGA

1760 1770 1780 1790 1800 1810 1820

GGCATTATGCCCAGTACATGACCTTATGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGC
CCGTAATACGGGTCATGTACTGGAATACCCTGAAAGGATGAACCGTCATGTAGATGCATAATCAGTAGCG
1830 1840 1850 1860 1870 1880 1890

SnaBI

|

TATTACCATGGTGATGCGGTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGA CT CACGGGGATTT
ATAATGGTACCCTACGCCAAAACCGTCATGTAGTTACCCGCACCTATCGCCAAACTGAGTGCCCTAAA
1900 1910 1920 1930 1940 1950 1960

NcoI

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AatII

|

CCAAGTCTCCACCCATTGACGTC AATGGGAGTTGTTTTGGCACCAAATCAACGGGACTTTCCAAAAT
GGTTCAGAGGTGGGGTAACTGCAGTTACCCTCAAACAAAACCGTGGTTTTAGTTGCCCTGAAAGGTTTTA
1970 1980 1990 2000 2010 2020 2030

GTCGTAACAAC TCCGCCCCATTGACGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAG
CAGCATTTGTTGAGGCGGGGTAAC TGC GTTTACCCGCCATCCGCACATGCCACCCTCCAGATATATTCGTC
2040 2050 2060 2070 2080 2090 2100

SacI

Ecl1136 II

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BsmBI

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BpmI

|

AGCTCGTTTTAGTGAACCGTCAGATCGCCTGGAGACGCCATCCACGCTGTTTTGACCTCCATAGAAGACAC
TCGAGCAAATCACTTGGCAGTCTAGCGGACCTCTGCGGTAGGTGCGACAAAAC TGGAGGTATCTTCTGTG
2110 2120 2130 2140 2150 2160 2170

SacII

BbsI

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Bgl I

|

|

EcoRI

|

XbaI

|

CGGGACCGATCCAGCCTCCGCGGCCCGAATTCACCATGTCTAGATTAGATAAAAAGTAAAGCTGATTAAC
GCCCTGGCTAGGTCCGAGGCGCCGGGGCTTAAGTGGTACAGATCTAATCTATTTTCATTTCTGACTAATTG
2180 2190 2200 2210 2220 2230 2240

AGCGCATTAGAGCTGCTTAATGAGGTCGGAATCGAAGGTTTAACAACCCGTAAACTCGCCAGAAGCTAG
TCGCGTAATCTCGACGAATTACTCCAGCCTTAGCTTCCAAATTGTTGGGCATTTGAGCGGGTCTTCGATC
2250 2260 2270 2280 2290 2300 2310

FspI

Pml I

|

|

GTGTAGAGCAGCCTACATTGTATTGGCACGTGCGCAACAAGCAGACTCTTATGAACATGCTTTCAGAGGC
CACATCTCGTCGGATGTAACATAACCGTGCACGCGTTGTTTCGTCTGAGAATACTTGTACGAAAGTCTCCG
2320 2330 2340 2350 2360 2370 2380

BpmI

|

AATACTGGCGAAGCATCACACCCGTT CAGCACC GTTACCGACTGAGAGTTGGCAGCAGTTTCTCCAGGAA
TTATGACCGCTTCGTAGTGTGGCAAGTCGTGGCAATGGCTGACTCTCAACCGTCGTCAAAGAGGTCCTT
2390 2400 2410 2420 2430 2440 2450

AATGCTCTGAGTTTCCGTAAGCATTACTGGTCCATCGTGATGGAGCCCGATTGCATATAGGGACCTCTC
TTACGAGACTCAAAGGCATTTTCGTAATGACCAGGTAGCACTACCTCGGGCTAACGTATATCCCTGGAGAG
2460 2470 2480 2490 2500 2510 2520

BstXI PpuMI
| |
CTACGCCCCCAGTTTGAACAAGCAGAGGGCGCAACTACGCTGTCTATGCGATGCAGGGTTTTTCGGTCTGA
GATGCGGGGGGGTCAAACCTGTTTCGTCTCCGCGTTGATGCGACAGATACGCTACGTCCCAAAGCCAGCT
2530 2540 2550 2560 2570 2580 2590

BcgI
|
GGAGGCTCTTTTCATTCTGCAATCTATCAGCCATTTTACGTTGGGTGCAGTATTAGAGGAGCAAGCAACA
CCTCCGAGAAAAGTAAGACGTTAGATAGTCGGTAAAATGCAACCCACGTCATAATCTCCTCGTTCGTTGT
2600 2610 2620 2630 2640 2650 2660

BcgI BseRI BsgI
| | |
AACCAGATAGAAAATAATCATGTGATAGACGCTGCACCACCATTATTACAAGAGGCATTTAATATTCAGG
TTGGTCTATCTTTTATTAGTACACTATCTGCGACGTGGTGGTAATAATGTTCTCCGTAAATTATAAGTCC
2670 2680 2690 2700 2710 2720 2730

BseRI BsgI SspI
| | |
CGAGAACCTCTGCTGAAATGGCCTTCCATTTCCGGGCTGAAATCATTAATATTTGGATTTTCTGCACAGTT
GCTCTTGGAGACGACTTTACCGGAAGGTAAAGCCCGACTTTAGTAATTATAAACCTAAAAGACGTGTCAA
2740 2750 2760 2770 2780 2790 2800

SspI
|
AGATGAAAAAAGCATAACCCATTGAGGATGGTAATAAAACCAAAAAAGAAGAGAAAGCTAGCAGTGTCA
TCTACTTTTTTTTCGTATGTGGGTAACCTACCATTATTTGGTFTTTTCTTCTCTTTTCGATCGTCACAGT
2810 2820 2830 2840 2850 2860 2870

EarI NheI
| |
GTGACATTTGAAGATGTGGCTGTGCTCTTTACTCGGGACGAGTGGAAGAAGCTGGATCTGTCTCAGAGAA
CACTGTAAACTTCTACACCGACACGAGAAATGAGCCCTGCTCACCTTCTTCGACCTAGACAGAGTCTCTT
2880 2890 2900 2910 2920 2930 2940

NcoI
|
GCCTGTACCGTGAGGTGATGCTGGAGAATTACAGCAACCTGGCCTCCATGGCAGGATTCCTGTTTACCAA
CGGACATGGCACTCCACTACGACCTCTTAATGTCGTTGGACCGGAGGTACCGTCCTAAGGACAAATGGTT
2950 2960 2970 2980 2990 3000 3010

BpmI Bgl I
| | |
ACCAAANGGTGATCTCCCTGTTGCAGCAAGGAGAGGATCCCTGGTAAATCGATCTGAGAAGTTTACGGGTG
TGTTTTNCCACTAGAGGGACAACGTCGTTTCTCTCCTAGGGACCATTTAGCTAGACTCTTGAAGTCCCAC
3020 3030 3040 3050 3060 3070 3080

BamHI Eco57 I
| |

PpuMI
 |
 AGTTTGGGGACCCTTGATTGTTCTTTCTTTTTTCGCTATTGTAAAATTCATGTTATATGGAGGGGGCAAA
 TCAAACCCCTGGGAACATAACAAGAAAGAAAAAGCGATAACATTTTAAAGTACAATATACCTCCCCCGTTT
 3090 3100 3110 3120 3130 3140 3150

NcoI BspHI
 | |
 GTTTTAGGGTGTGTTTGAATGGGAAGATGTCCCTTGTATCACCATGGACCCTCATGATAATTTTGT
 CAAAAGTCCCACAACAATCTTACCCTTCTACAGGGAACATAGTGGTACCTGGGAGTACTATTAAACAA
 3160 3170 3180 3190 3200 3210 3220

BseRI
 |
 TCTTTCACCTTCTACTCTGTTGACAACCATTGTCTCCTCTTATTTTCTTTTCATTTTCTGTAACCTTTTC
 AGAAAGTGAAAGATGAGACAACCTGTTGGTAACAGAGGAGAATAAAAGAAAAGTAAAAGACATTGAAAAAG
 3230 3240 3250 3260 3270 3280 3290

DraI ScaI
 | |
 GTTAAACTTTAGCTTGCATTTGTAACGAATTTTTAAATTCACCTTCGTTTATTTGTCAGATTGTAAGTAC
 CAATTTGAAATCGAACGTAAACATTTGCTTAAAAATTTAAAGTAAAGCAAATAAACAGTCTAACATTCATG
 3300 3310 3320 3330 3340 3350 3360

Eco57 I
 |
 TTTCTCTAATCACTTTTTTTTTCAAGGCAATCAGGGTATATTTATTTGTAAGTTCAGCACAGTTTTAGAGAA
 AAAGAGATTAGTGAAAAAAAGTCCGTTAGTCCCATATAATATAACATGAAGTCGTGTCAAATCTCTTT
 3370 3380 3390 3400 3410 3420 3430

MfeI SspI SspI
 | | |
 CAATTGTTATAATTAATGATAAGGTAGAATATTTCTGCATATAAATCTGGCTGGCGTGGAATATTCT
 GTTAAACAATATTAATTTACTATTCCATCTTATAAAGACGTATATTTAAGACCGACCGCACCTTTATAAGA
 3440 3450 3460 3470 3480 3490 3500

ATAACCATCTTTGTTGATGTGGGACCAGTAGTAGGACGGAAAGAGAAATACCAATGTTACTATATGTGNC
 3510 3520 3530 3540 3550 3560 3570

ApaI Bsp120 I
 | |
 TTTGAGATGAGGATAAAATACTCTGAGTCCAAACCGGGCCCTCTGCTAACCATGTTTCATGCCTTCTTCT
 AACTCTACTCCTATTTTATGAGACTCAGGTTTGGCCCGGGAGACGATTGGTACAAGTACGGAAGAAGA
 3580 3590 3600 3610 3620 3630 3640

AlwNI EcoRI BseRI
 | | |
 TTTTCTACAGCTCCTGGGCAACGTGCTGGTTGTTGTGCTGTCTCATCATTTTGGCAAAGAATTCACTCC
 AAAAGGATGTCGAGGACCCGTTGCACGACCAACAACACGACAGAGTAGTAAAACCGTTTCTTAAGTGAGG
 3650 3660 3670 3680 3690 3700 3710

SapI
EarI
|
GGAGAGGCGGTTTGGCGTATTGGGCGCTCTTCCGCTTCCTCGCTCACTGACTCGCTGCGCTCGGTTCGTTTCG
CCTCTCCGCCAAACGCATAACCCGCGAGAAGGCGAAGGAGCGAGTGACTGAGCGACGCGAGCCAGCAAGC
4420 4430 4440 4450 4460 4470 4480

BsrBI
|
GCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCA
CGACGCCGCTCGCCATAGTCGAGTGAGTTTCCGCCATTATGCCAATAGGTGTCTTAGTCCCCTATTGCGT
4490 4500 4510 4520 4530 4540 4550

BspLU11 I
|
GGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTT
CCTTCTTGTACTCGTTTTCCGGTCGTTTTCCGGTCCTTGGCATTTTTTCCGGCGCAACGACCCGCAAAA
4560 4570 4580 4590 4600 4610 4620

DrdI
|
TCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAAACCCGAC
AGGTATCCGAGGCGGGGGGACTGCTCGTAGTGTTTTTAGCTGCGAGTTCAGTCTCCACCGCTTTGGGCTG
4630 4640 4650 4660 4670 4680 4690

BssSI
|
AGGACTATAAAGATACCAGGCGTTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCCTGCCG
TCCTGATATTTCTATGGTCCGCAAAGGGGGACCTTCGAGGGAGCACGCGAGAGGACAAGGCTGGGACGGC
4700 4710 4720 4730 4740 4750 4760

CTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCAATGCTCACGCTGTAGGT
GAATGGCCTATGGACAGGCGGAAAGAGGGAAAGCCCTTCGCACCCGCGAAAGAGTTACGAGTGCACATCCA
4770 4780 4790 4800 4810 4820 4830

ApaLI
|
ATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCCGTTTCAGCCCGACCG
TAGAGTCAAGCCACATCCAGCAAGCGAGGTTTCGACCCGACACACGTGCTTGGGGGGCAAGTCCGGCTGGC
4840 4850 4860 4870 4880 4890 4900

CTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCA
GACGCGGAATAGGCCATTGATAGCAGAACTCAGGTTGGGCCATTCTGTGCTGAATAGCGGTGACCGTCGT
4910 4920 4930 4940 4950 4960 4970

AlwNI
|
GCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTA
CGGTGACCATTGTCTAATCGTCTCGCTCCATACATCCGCCACGATGTCTCAAGAACTTCACCACCGGAT
4980 4990 5000 5010 5020 5030 5040

Eco57 I
|
ACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAG
TGATGCCGATGTGATCTTCTGTGCATAAACCATAGACGCGAGACGACTTCGGTCAATGGAAGCCTTTTTTC
5050 5060 5070 5080 5090 5100 5110

AGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAG
TCAACCATCGAGAACTAGGCCGTTTGTGGTGGCGACCATCGCCACCAAAAAACAAACGTTTCGTTCGTC
5120 5130 5140 5150 5160 5170 5180

ATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGA
TAATGCGCGTCTTTTTTCTAGAGTTCTTCTAGGAACTAGAAAAGATGCCCCAGACTGCGAGTCACCT
5190 5200 5210 5220 5230 5240 5250

BspHI | DraI |
ACGAAAACTCACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAA
TGCTTTTGTAGTGAATTCCCTAAAACCAGTACTCTAATAGTTTTTCTAGAAAGTGGATCTAGGAAAATTT
5260 5270 5280 5290 5300 5310 5320

DraI |
TTAAAAATGAAGTTTTTAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTA
AATTTTTACTTCAAATTTAGTTAGATTTTCATATATACTCATTTGAACCAGACTGTCAATGGTTACGAAT
5330 5340 5350 5360 5370 5380 5390

AhdI |
ATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCCGTCGTGT
TAGTCACTCCGTGGATAGAGTCGCTAGACAGATAAAGCAAGTAGGTATCAACGGACTGAGGGGCAGCACA
5400 5410 5420 5430 5440 5450 5460

BsaI | BsrDI | BpmI |
AGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTC
TCTATTGATGCTATGCCCTCCCGAATGGTAGACCGGGGTCACGACGTTACTATGGCGCTCTGGGTGCGAG
5470 5480 5490 5500 5510 5520 5530

Bgl I |
TGGCCGAGGTCTAAATAGTCGTTATTTGGTTCGGTTCGGCCTTCCCGGCTCGCGTCTTCACCAGGACGTTGA
5540 5550 5560 5570 5580 5590 5600

AseI |
TTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTT
AATAGGCGGAGGTAGGTCAGATAATTAACAACGGCCCTTCGATCTCATTCATCAAGCGGTCAATTATCAA
5610 5620 5630 5640 5650 5660 5670

Psp1406 I | FspI | BsrDI |
TGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGTCGTTTTGGTATGGCTTCATTAG
ACGCGTTGCAACAACGGTAACGATGTCGGTAGCACCACAGTGCAGCAGCAAACCATACCGAAGTAAGTC
5680 5690 5700 5710 5720 5730 5740

CTCCGGTTCCTAACGATCAAGGCGAGTTACATGATCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTC
GAGGCCAAGGGTTGCTAGTTCCGCTCAATGTACTAGGGGTACAACACGTTTTTTTCGCCAATCGAGGAAG
5750 5760 5770 5780 5790 5800 5810

PvuI
 |
 GGTCCCTCCGATCGTTGTCAGAAGTAAGTTGGCCGCAGTGTATCACTCATGGTTATGGCAGCACTGCATA
 CCAGGAGGCTAGCAACAGTCTTCATTC AACCGGCGTCAACAATAGTGAGTACCAATACCGTCGTGACGTAT
 5820 5830 5840 5850 5860 5870 5880

ScaI
 |
 ATTCTCTTACTGTCATGCCATCCGTAAGATGCTTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTG
 TAAGAGAATGACAGTACGGTAGGCATTCTACGAAAAGACACTGACCACTCATGAGTTGGTTTCAGTAAGAC
 5890 5900 5910 5920 5930 5940 5950

BcgI BcgI
 | |
 AGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGCGTCAATACGGGATAATACCGCGCCACATAGC
 TCTTATCACATACGCCGCTGGCTCAACGAGAACGGGCCGAGTTATGCCCTATTATGGCGCGGTGTATCG
 5960 5970 5980 5990 6000 6010 6020

DraI XmnI
 | | Psp1406 I
 | |
 AGAACTTTAAAAGTGCTCATCATTTGAAAACGTTCTTCGGGGCGAAAACCTCTCAAGGATCTTACCGCTGT
 TCTTGAAATTTTACGAGTAGTAACCTTTTGCAAGAAGCCCCGCTTTTGAGAGTTCCTAGAATGGCGACA
 6030 6040 6050 6060 6070 6080 6090

ApaLI
 Eco57 I
 BssSI
 | | |
 TGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTTACTTTTACCAGCGT
 ACTCTAGGTCAAGCTACATTGGGTGAGCACGTGGGTTGACTAGAAAGTCGTAGAAAATGAAAGTGGTTCGCA
 6100 6110 6120 6130 6140 6150 6160

TTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAGGGAATAAGGGCGACACGGAAATGTTGA
 AAGACCCACTCGTTTTTGTCCCTCCGTTTTACGGCGTTTTTCCCTTATPCCCGCTGTGCCTTTACAACCT
 6170 6180 6190 6200 6210 6220 6230

EarI SspI BspHI BsrBI
 | | | |
 ATACTCATACTCTTCCTTTTTCAATATTATTGAAGCATTTATCAGGGTTATTGTCTCATGAGCGGATACA
 TATGAGTATGAGAAGGAAAAAGTTATAATAACTTCGTAAATAGTCCCAATAACAGAGTACTCGCCTATGT
 6240 6250 6260 6270 6280 6290 6300

TATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCCGCGCACATTTCCCCGAAAAGTGCCACCTGA
 ATAAACTTACATAAATCTTTTTATTTGTTTTATCCCCAAGGCGCGTGTAAAGGGCTTTTACGGTGGACT
 6310 6320 6330 6340 6350 6360 6370

AatII BspHI BssSI
 | | |
 CGTCTAAGAAACCATTATTATCATGACATTAACCTATAAAAATAGGCGTATCACGAGGCCCTTTTCGTC
 GCAGATCTTTGGTAATAATAGTACTGTAATTGGATATTTTTATCCGCATAGTGCTCCGGGAAAGCAG
 6380 6390 6400 6410 6420 6430 6440