



PvuI (7)
SgfI (6)

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTCACGGCCCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

PvuII (239)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

NgoMIV (441)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCATCATGAAGCTTCTAGCCTCTCCCTTCTTCTGTTGCTTCC

KasI (535)

AgeI (552)

BspHI (560)

1▶ M K L L A S P F L L L L P

BbsI (619)

NcoI (614)

601 AGTGATGCTCATGTCCATGGTCTTCAGCAGCCCGAACCCAGGGTGCAGGAGCCACCGGGACCAACACCTGGCTCTAGGAGGTGGCTCTTGAAGGT

13▶ V M L M S M V F S S P N P G V A R S H G D Q H L A P R R W L L E G

AvrII (676)

MscI (699)

701 GGCCAAGAATGTGAATGCAAAGATTGGTCTGCAAGCCCAAGAGAAAAGCCACAGCAGTGTGGGCCACCAAGGAAGCAGTGTCCCTGTGATCAG

47▶ G Q E C E C K D W F L Q A P K R K A T A V L G P P R K Q C P C D H

XcmI (752)

801 TCAAGGGCAGGGAGAAAAAACAAGACACCAAAAGCACCACAGGAAAGTGCAGAAAGACCTCCAGAGCCTGCCAGCAATTTCTCAAACGATGTCACCTGGC

80▶ V K G R E K K N R H Q K H H R K S Q R P S R A C Q Q F L K R C H L A

BstAPI (898)

NheI (926)

ScaI (920)

MscI (932)

901 AAGCTTTGCGCTGCCCTTATAGTACTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAACCACAACCTAGAATGCAGTGAAAAAATG

113▶ S F A L P L •

HpaI (1064)

MfeI (1075)

1001 CTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTCATTATTTATGTTTCAG

EcoRI (1160)

1101 GTTCAGGGGAGGTGTGGGAGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCATAAATACAGCATAGCAAACTTTAACCTCCAAA

1201 TCAAGCCTCTACTGAACTCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTC

SapI (1342)

SspI (1399)

1301 ATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTAGTAAA

Swal (1413)

EcoO109I (1474)

1401 ATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTT

1501 AGTAGTTGGAAGTGGAAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGGGGGATGAGT

SacI (1674)

1601 TCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGC

130▶ E I T T K V L K G N M E I L V F C D P A Y D S I L E R C M G C P S

BstXI (1703)

1701 TGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGCTTCTGCCCCTGCTCACAGCAGACCCAAT

97▶ V V R I S R D V E D S Y P H R V A V I T D F D K Q G N S V A S G I

StuI (1838)

1801 GGCAATGGCTTCCAGCAGACAGTACCCTGCCAATGTAGGCCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACA

64▶ A I A E A C V T V R G I Y A E I H V A S I I E G T K T R I A A G V

BbsI (1984)

XmnI (1980)

1901 TGGTCTTGTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCAAGTGGCC

30▶ H H K N D E Y L M T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2046)

2001 TCCTATAGTGAGTCGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACCTA

SacI (2103)

2101 AACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATT

SpeI (2201)

2201 TACTAGTCAAACAAACTCCCATTTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCAGCCCATTTGATGTAAGTCCAAAAC

SnaBI (2329)

2301 CGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCAATGACTGGGCATAATGCCAGGCGGGCCATT

NdeI (2434)

2401 TACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCCTAAATACTCCACCCATTGACGTCA
2501 ATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGTCTGTTGGCGGTGACGCCAGCGGGCCATTTACCGTA

PacI (2620)

PstI (2613) SdaI (2612) BspLU11I (2630)

2601 AGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTCCATAG
2701 GCTCCGCCCCCTGACGAGCATCAGAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGC
2801 TCCCTCGTGCGCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTA

ApaLI (2944)

2901 GGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCT
3001 TGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTCTTG
3101 AAGTGGTGGCCTAACTACGGCTACTAGAGAAGCAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGAT
3201 CCGGCAAACAACACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTC

EagI (3380)

PacI (3360) SmaI (3369) NotI (3379)

3301 TACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGAATAAAATATCTT
3401 TATTTTCATTACATCTGTGTGTTGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGC
3501 TGCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA