



PvuI (7)
SgfI (6)
MfeI (82) **EcoNI (96)**

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
HindIII (245) **EcoNI (287)**

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACGCGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NgoMI (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTACCATGGTGGAGGGGCTGGGAAAGGCTGTTTACTCCCTC
1▶ M G G G A G E R L F T P S

EcoRV (633)
Eco32I (633)
BspEI (629)

601 CTGTCTAGTCGGCTTGGTCCCTTTAGGCTCCGGATATCTTTGGTGAAGTGTCCACTCCAGTGTGGCATCATGTGGCAGTGTCTCTCCCAACTGCTCTG
 13▶ C L V G L V P L G L R I S L V T C P L Q C G I M W Q L L L P T A L

SphI (719) **BglII (732)** **XhoI (781)**

701 CTACTTCTAGTTTCAGCTGGCATGCGGACTGAAGATCTCCAAAGGCTGTGGTGTCTGGAGCCTCAATGGTACAGGGTGTCTCGAGAAGGACAGTGTGA
 47▶ L L L V S A G M R T E D L P K A V V F L E P Q W Y R V L E K D S V

XhoI (882)
StuI (878)
Eco147I (878)

801 CTCTGAAGTGCCAGGGAGCCTACTCCCCTGAGGACAATCCACACAGTGGTTTACAATGAGAGCCTCATCTCAAGCCAGGCTCGAGCTACTTCATTGA
 80▶ T L K C Q G A Y S P E D N S T Q W F H N E S L I S S Q A S S Y F I D

SaII (910)

901 CGCTGCCACAGTCGACGACAGTGGAGAGTACAGGTGCCAGACAAACCTCTCCACCCTCAGTGACCCGGTGCAGCTAGAAGTCCATATCGGCTGGCTGTTG
 113▶ A A T V D D S G E Y R C Q T N L S T L S D P V Q L E V H I G W L L

1001 CTCCAGGCCCTCGGTGGGTGTTCAAGGAGGAAGCCTATTACCTGAGGTGTACAGCTGGAAGAAGACTGCTGCATAAGTGCATATTTACAGA
 147▶ L Q A P R W V F K E E D P I H L R C H S W K N T A L H K V T Y L Q

PstI (1182)

1101 ATGGCAAAGGCAGGAAGTATTTTCATCATAATTCTGACTTCTACATTCCAAAAGCCACACTCAAAGACAGCGGCTCCTACTTCTGAGGGGGCTTGTGG
 180▶ N G K G R K Y F H H N S D F Y I P K A T L K D S G S Y F C R G L V G

Asp718I (1286)
Acc65I (1286)

1201 GAGTAAAAATGTGTCTTCAGAGACTGTGAACATCACCATCACTCAAGGTTTGGCAGTGTCAACCATCTCATATTCTTTCCACCTGGGTACCAAGTCTCT
 213▶ S K N V S S E T V N I T I T Q G L A V S T I S S F F P P G Y Q V S

BstBI (1367)
AsuII (1367)

1301 TTCTGCTTGGTGTGTTACTCCTTTTTGAGTGGACACAGGACTATATTTCTGTGAAGACAAACATTCGAAGCTCAACAAGAGACTGGAAGGACCATA
 247▶ F C L V M V L L F A V D T G L Y F S V K T N I R S S T R D W K D H

MscI (1453)
NheI (1447)

1401 AATTTAAATGGAGAAAGGACCCTCAAGACAAATGACCCCATCCCATGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAC
 280▶ K F K W R K D P Q D K •

HpaI (1585) **MfeI (1596)**

1501 TAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAAT

EcoRI (1681)

1601 TGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTTACAAATGTGGTATGGAATCTAAATACAGCAT
▶ ◀

1701 AGCAAACTTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTG
 1801 TTTGCAGCCTCACCTTCTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTACTCTTCATTTCTTTATGTTTTAAATGCAGTACCTC

SspI (1920)

1901 CCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCC
 2001 CTTCATAATATCCCCAGTTTAGTGTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTG
141▶ • N R

SacI (2195)

2101 GTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCT
 137▶ T Y K L P I L E 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

BstXI (2224)

2201 CTCTGCACATGCCACAGGGGCTGACCACCTGATGGATGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCC
 104▶ R C M G C P S 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

StuI (2359)
 Eco147I (2359)

2301 GTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTGACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTG
 71 N S V A S G I 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
 2401 GTCCTGATGGCCGCCCGACATGGTGTGTTGCTCCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGT
 37 T R I A A G V 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

BspHI (2509) VspI (2567)
 XmnI (2501) AseI (2567)

2501 TGAAGTCTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCC
 4 F T K M

SacI (2624)

2601 AGCTTATCTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGAC

SpeI (2722)

2700 ATTTTGGAAAGTCCC GTT GATTTACTAGTCAAAA CAAACTCCCATTGACGTCAATGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCAC

SnaBI (2850)
 Eco105I (2850)

2799 GCCCATTGATGTA CTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTA CTGCCAAGTAGGAAAGTCCCATAAGGTCATGTA CTG

NdeI (2955)

2899 GGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGTGTA CTGCCAAGTGGGCAGTTTACCGT

2999 AAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGT TACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCTGTTGGGCGGTC

PstI (3134) PciI (3151)
 SdaI (3133) PacI (3141) BspLU11I (3151)

3099 AGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGG
 3197 CCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATC AAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAG
 3297 ATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTG

ApaLI (3465)

3397 GCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCT
 3497 GCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTA
 3597 TGTAGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTC
 3697 GGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGAT

PacI (3881)

3797 CTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAA

EagI (3901)
 NotI (3900)

3897 ATCAGCGCCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACATAACGCTCTCCATCAAAACAAAACGA
 3997 AACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA