



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCCTGTTGCGCCCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

BspHI (560)
AgeI (552)
501 TCTGTTCTGCGCGCTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCATCATGAAGCCTAAAATGAAGTATCAACCAACAAAATTC
601 CACAGCAAAGTGGAAAGAACACAGCAAGCAAAGCCTTGTGTTTCAAGCTGGGAAAATCCCAACGAGAAGGCCAAAGAAAGTTGCCCATGTACTTTATGAAG
13▶ T A K W K N T A S K A L C F K L G K S Q Q K A K E V C P M Y F M K
1▶ M K P K M K Y S T N K I S

BsrBI (702)
701 CTCCGCTCTGGCCTTATGATAAAAAAGGAGGCCTGTTACTTTAGGAGAGAAAACCAAAAAGGCCTTCACTGAAAACAGGTAGAAAGCACAAAAGACATC
47▶ L R S G L M I K K E A C Y F R R E T T K R P S L K T G R K H K R H

BspHI (885)
801 TGGTACTCGCTGCCTGTCAACAGCAGTCTACTGTGGAGTGCTTTGCCCTTGGTATATCAGGGTCCAGAAATATACTAGAGCACTTCATGATTCAAGTAT
80▶ L V L A A C Q Q Q S T V E C F A F G I S G V Q K Y T R A L H D S S I
901 CACAGGAATTTCACTATTACAGAGTATCTTGCTTCTAAGCACATACAATGATCAATCCATTACTTTGCTTTGGAGGATGAAAGTTATGAGATATAT
113▶ T G I S P I T E Y L A S L S T Y N D Q S I T F A L E D E S Y E I Y

BbsI (1003)
1001 GTTGAAGACTTGAAAAAGATGAAAAGAAAGATAAGGTGTTACTGAGTACTATGAGTCTCAACACCCCTCAAATGAATCAGGTGACGGTGTGATGGTA
147▶ V E D L K K D E K K D K V L L S Y Y E S Q H P S N E S G D G V D G

BstEII (1110) **SphI (1143)** **DraIII (1162)**
1101 AGATGTTAATGGTAACCTGAGTCTACAAAAGACTTCTGGTTGCATGCCAACAAAGGAACACTCTGTGGAGCTCCATAAGTGTGAAAACCACTGCC
180▶ K M L M V T L S P T K D F W L H A N N K E H S V E L H K C E K P L P

BsaBI (1291)
1201 AGACCAGGCTTCTTTGCTTTCATAATATGCACTCCAAGTGTGTTTCATTTGAATGCAAGACTGATCCTGGAGTGTTTATAGGTGTAAGGATAATCAT
213▶ D Q A F F V L H N M H S N C V S F E C K T D P G V F I G V K D N H

MscI (1380)
NheI (1374)
1301 CTTGCTCTGATTAAGTAGACTCTTCTGAGAATTTGTGTAAGTAAATATCTGTTTAAAGCTCTGAAACTTAGCTAGCTAGCCAGACATGATAAGATA
247▶ L A L I K V D S S E N L C T E N I L F K L S E T •
1401 CATTGATGAGTTTGGACAAACCAACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGC

HpaI (1512) MfeI (1523)
1501 TGCAATAAACAAGTTAAACAACAATTGCATTATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAAT

EcoRI (1608)
1601 GTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCA

SapI (1790)
1701 GGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCATT

SspI (1847) **SwaI (1861)**
1801 TCTTTATGTTTTAAATGCACTGACCTCCACATCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTA

EcoO109I (1922)
1901 TTAGGCAGAAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAG
2001 AAAGCGAGCTTCTAGCTTTGATGTTCTGGTGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGC
141▶ N R 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

BstXI (2151)
2101 AGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGC
113▶ D P A Y D S I L E R C M G C P S V V R I S R D V E D S Y P H R V A
2201 CACAAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGG
80▶ V I T D F D K Q G N S V A S G I A I A E A C V T V R G I Y A E I H
2301 ACAGCAGAGATGATCTCCAGTCTTGGTCTGATGGCCGCCAGCATGGTCTTGTGTCCTATAGAGCATGGTATCTTCTCAGTGGCGACCTCCA
46▶ V A S I A I E G T K 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

BbsI (2432)
XmnI (2428) **AseI (2494)**
2401 CCAGTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGTGCTATTATACTATGCCGATATACTATGCCGATGATTAAT
13▶ L E L D Q Q S I N F T K M
2501 TGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTG

2601 CGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAAT
SpeI (2649)
←

2701 CCCC GTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAG
SnaBI (2777)

2801 GAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATG
NdeI (2882)

2901 TACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTC

PacI (3068)
PstI (3061)
SdaI (3060)
BspLU11I (3078)

3001 AATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAAAAAGGCCAGCA
←

3101 AAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGG
←

3201 CGAAACCCGACAGGACTATAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCTGCCGCTTACGGATACCTGTCCG

ApaLI (3392)

3301 CCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGA
←

3401 ACCCCCGTTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGT
←

3501 AACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCG
←

3601 CTCTGCTGAAGCCAGTTACCTTCGGA AAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTGGCAAGCAGCA
←

3701 GATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTGGTC
←

PacI (3808) SwaI (3817) EagI (3828) NotI (3827)

3801 ATGGCTAGTTAATTAACATTTAAATC AGCGGCCCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATA
←

3901 CGCTCTCCATCAAAAACAAAACGAAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA