



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

HindIII (245) **Bsu36I (291)**
Psp1406I (203) PvuII (239) EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACACGCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **BspHI (560)**
501 TCTGTTTGCAGCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCATCATGAGACCTAGAATGAAGTATCCAACCTCAAGATTC
1▶ M R P R M K Y S N S K I S

BbsI (669) **EcoRI (679)**
601 CCCGGCAAAGTTCAGCAGCACCGCAGGC GAAG CCC TGGTCCCGCCTTGCAAATAAGAAGATCCCAACAGAACCAAAGAATTCTGCCATGTCTACTG
13▶ P A K F S S T A G E A L V P P C K I R R S Q Q K T K E F C H V Y C

SpeI (736) **Acc65I (784)**
701 ATGAGACTCCGTTCTGGCCTCACCATAAGAAAGGAGACTAGTTATTTAGGAAAGAACCACGAAAAGATATCACTAAAATCGGGTACCAAGCATGAAG
47▶ M R L R S G L T I R K E T S Y F R K E P T K R Y S L K S G T K H E

BstAPI (859)
801 AGAAGTCTCTGCCTATCCACGGGATTCTAGGAAGAGATCCTTGTGGCAGTATCCAAGCATTGCTGCGTCTGTTGACACATTGAGCATCCAAGGAAC
80▶ E N F S A Y P R D S R K R S L L G S I Q A F A A S V D T L S I Q G T
901 TTCACCTTTAACACAGTCTCCTGCCTCCTGAGTACATACAATGACCAATCTGTTAGTTTTGTTTGGAGAATGGATGTTATGTGATCAATGTTGACGAC
113▶ S L L T T Q S P A S L S T Y N D Q S V S F V L E N G C Y V I N V D D
1001 TCTGGAAAAGACCAAGAGCAAGACCGGTGCTACTACGCTACTATGAGTCTCCCTGCTCAGTCAATCAGGCACGGTGTGGATGGGAAGCAAGCTGA
147▶ S G K D Q E Q D Q V L L R Y Y E S P C P A S Q S G D G V D G K K L

SphI (1140) **BspEI (1194)**
1101 TGGTGAACATGAGTCCATCAAAGACACAGACATCTGGCTGCATGCCAACGACAGGACTACTCCGTGGAGCTTCAAAGGGGTGACGCTCTCGCTCCGGA
180▶ M V N M S P I K D T D I W L H A N D K D Y S V E L Q R G D V S P P E

StuI (1202) **PvuII (1294)**
1201 ACAGGCCTTCTTGTCTTCCAAAAAGTCTCGGACTTTGTTTCATTTGAATGCAAGATCTTCTGGCACTTACATAGGAGTAAAA GATAACCCAGCTG
213▶ Q A F F V L H K K S S D F V S F E C K N L P G T Y I G V K D N Q L

MscI (1369)
1301 GCTCTAGTGGAGGAGAAAGATGAGAGCTGCAACAATATTATGTTAAGCTCTCGAAAATCTAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGT
247▶ A L V E E K D E S C N N I M F K L S K I •

NheI (1363)
1401 TTGGCAAACCAACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACA

HpaI (1501) **MfeI (1512)** **EcoRI (1597)**
1501 AGTTAACAAACAACATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAA
1601 TTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGC
1701 CAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGAGTTTAAGATATAGTGTATTTCCCAAGGTTTGAAGTACTCTTCAATTTCTTTATGTTT

SspI (1836) **SwaI (1850)**
1801 TAAATGCACTGACCTCCACATTCCCTTTTATGTAATAATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGCAGAAT

EcoO109I (1911)
1901 CCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTT
2001 CTAGCTTTAGTTCCTGGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCATCTCAATGAGCACAAGCAGTCAGGAGCA
—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 D P A

SacI (2111) **BstXI (2140)**
2101 TAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGT
109▶ 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 V I T D

StuI (2275)
2201 CAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCTCAATGTGGACAGCAGAGAT
76▶ 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 V A S I
2301 GATCTCCCGAGTCTTGGTCTGATGGCCGCCCGGACATGGTGTCTGTTGCTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGA
43▶ 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 L E L

BbsI (2421) **XmnI (2417)** **AseI (2483)**
2401 TCCTGCTGAGAGATGTTGAAGGTCTTATGCTGGCCCTCTATAGTGAGTCTGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAG
9▶ D Q Q S I N F T K M

SacI (2540)
2501 CGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCCTACACGCTACCGCCATTTGCGTCAATGGGG

2601 CGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTC
SpeI (2638)
←

2701 AAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCCAAGTAGGAAAGTCCCAT
SnaBI (2766)

2801 AAGGTCATGTAAGTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGTACTGCCAAGT
NdeI (2871)

2901 GGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATATTGACGTCAATGGGCGGGG

PacI (3057)
PstI (3050)
SdaI (3049)
BspLU11I (3067)

3001 GTCGTTGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGA
←

3101 ACCGTAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGAC

3201 AGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCT

ApaLI (3381)

3301 TCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTC

3401 AGCCGACCGCTGCGCTTATCCGTAAGTATCGTCTTGAGTCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAG

3501 CAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAAGCAGTATTTGGTATCTGCGCTCTGCTGAAG

3601 CCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGGCA

PacI (3797)

3701 GAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTA

EagI (3817)
SwaI (3806) NotI (3816)

3801 ATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATC

3901 AAAACAAAACGAAACAAAACAAACTAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA