



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAAGTGGCGGGGTAAGTGGAAAGTGATGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **BspHI (568)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGTAGGAGGGCCATCATGAGTCCAGGGAGAGCTTCATCTGTGTCT
601 CTGATGCTGTTGCTGCTGCTGAGCCTGGCGGCTACAGTGAAGGCAGCAGCGATCATCCCTCAAAGCTCAGCGTGTCCAAACACTGAGGCCAAGGACTTCC
11▶ L M L L L L L S L A A T V K A A A I I P Q S S A C P N T E A K D F
EcoO109I (762)
701 TCCAGAATGTGAAGTCAACCTCAAAGTCTTAACTCCCTTGGCGCAAAGTGAAGTCCAGAAGGCCCTCAGACTACCTCAACCGTTCCACGTCACCCTG
44▶ L Q N V K V N L K V F N S L G A K V S S R R P S D Y L N R S T S P W

EcoRV (829) **BsaBI (825)** **Eco47III (868)**
801 GACTCTCCACCGCAATGAAGACCCTGATAGATCCCTCTGTGATCTGGGAAGCTCAGTGCAGCCACCGCTGTGCAATGCGGAGGGAAAGCTGGAC
77▶ T L H R N E D P D R Y P S V I W E A Q C R H Q R C V N A E G K L D
EcoRI (908)
901 CACCACATGAATCTGTTCTCATCCAGCAAGAGATCCTGGTCTGAAGAGGGAGCCTGAGAGCTGCCCTTCACTTTCAGGGTGCAGAAGATGCTGGTGG
111▶ H H M N S V L I Q Q E I L V L K R E P E S C P F T F R V E K M L V
NheI (1060)
SacII (1055) **MscI (1066)**
1001 GTGTGGGCTGCACCTGCGTGGCCTGATTGTCCGCCAGGCAGCCTAAACAGAGACCCGCGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTG
144▶ G V G C T C V A S I V R Q A A •

HpaI (1198)
1101 GACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGT

MfeI (1209) **EcoRI (1294)**
1201 TAACAACAACAATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGGTATGGAATTC
1301 TAAAAACAGCATAGCAAACTTAACTCCAATCAAGCCTCTACTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAA
1401 TGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTGAACTAGCTCTTCATTTCTTTATGTTTTAA

SspI (1533) **SwaI (1547)**
1501 ATGCACTGACCTCCACATTCCTTTTTAGTAAATATTCAGAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTATTAGGCAGAATCCA

EcoO109I (1608)
1601 GATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTA
1701 GCTTAGTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCTCAATGAGCACAAAGCAGTCAGGAGCATAG
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 Y

BstXI (1837)
1801 TCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAA
108▶ 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 F

StuI (1972)
1901 AGTCCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGACAGCAGAGATGAT
75▶ 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 I
2001 CTCCCAGTCTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCC
42▶ 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 D

BbsI (2118) **XmnI (2114)** **AseI (2180)**
2101 TGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGTGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGT
8▶ Q Q S I N F T K M
2201 GGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGG

SpeI (2335)
2301 AGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAACTCCCATTTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGTGAGTCAAA

SnaBI (2463)
2401 CCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAG

NdeI (2568)
2501 GTCATGTAAGTGGCATAATGCCAGCGGGCCATTTACCGTCAATTGACGTCAATAGGGGGCGTACTTGGCATATGATACTTGTACTGCAAGTGGG

2601 CAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTC

PacI (2754)

PstI (2747)

SdaI (2746)

BspLU11I (2764)

2701 GTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACC

2801 GTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGG

2901 ACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCG

3001 GGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGC

3101 CCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAG

3201 AGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCA

3301 GTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAA

3401 AAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATT

PacI (3494)

EagI (3514)

Swal (3503)

NotI (3513)

3501 AACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAA

3601 ACAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAAGTGCCAGAACATTTCTCTATCGAA