



PvuI (7)
SgfI (6) **MfeI (82)**
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) **PvuII (239)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

NcoI (560)
BstEII (555)
AgeI (552)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATTGGCTCAGATGATGACTCTGAGCCTCCTTAGCCTGGT
1▶ M A Q M M T L S L L S L V

XcmI (624)
601 CCTGGCTCTCTGCATCCCCTGGACCCAAGGCGATGATGGAGGGGGTCAAGGACTGCTGCCTTAAGTACAGCCAGAAGAAAATCCCTACAGTATTGTCCGA
13▶ L A L C I P W T Q G S D G G G Q D C C L K Y S Q K K I P Y S I V R

Bsu36I (793)
701 GGCTATAGGAAGCAAGAACCAAGTTTGGCTGTCCATCCCGCAATCCTGTTCTCACCCGGAAGCACTAAGCCTGAGCTATGTGCAAACCTGAGG
47▶ G Y R K Q E P S L G C P I P A I L F S P R K H S K P E L C A N P E

PstI (867)
801 AAGGCTGGGTGCAGAACCTGATGCGCCGCTGGACCAGCTCCAGCCCGAGGAAACAAAGCCCGGCTGCAGGAAGAACCAGGGAACCTTAAGTCTGG
80▶ E G W V Q N L M R R L D Q P P A P G K Q S P G C R K N R G T S K S G

MscI (992)
NheI (986)
901 AAAGAAAGGAAAGGGCTCCAAGGGCTGCAAGAGAACTGAACAGACACAGCCCTCAAGAGGATAGCCAGTAGCCCGCTGGAGCCCGTAGCTGGCCAGA
113▶ K K G K G S K G C K R T E Q T Q P S R G •

1001 CATGATAAGATACATTGATGAGTTTGGACAAACCACAACACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTA

HpaI (1124) **MfeI (1135)**
1101 ACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCTTTTATGTTTCAGGTTTCAAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAA

EcoRI (1220)
1201 ACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTGAACTCTTTTCTGAGGGATGAATAAG
1301 GCATAGGCATCAGGGGCTTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTCATGGAGTTTAAAGATATAGTATTTTCCAAGGTTTGAAC

SapI (1402) **SspI (1459)** **Swal (1473)**
1401 TAGCTCTTCAATTTCTTTATGTTTAAATGCACTGACCTCCACATTCCCTTTTGTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAT

EcoO109I (1534)
1501 AAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAA
1601 TTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGGGGGATGAGTTTCTCAATGGTGGTTTTGACCAGCTTGCATTTCATCTCAA
141▶ • N R T Y K L P I L E E I T T K V L K G N M E I

SacI (1734) **BstXI (1763)**
1701 TGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACTGATGGATCTGTCCACCTCATCAGAGTAGGG
117▶ L V F C 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

StuI (1898)
1801 GTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTTCAGCACAGACAGTACCCTGCCAATGTAG
84▶ H R V A 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
1901 GCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCCGCCCGACATGGTGCTTGTGCTCATAGAGCATGGTGTCTTCTCAG
50▶ A E I H V A S I 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

BbsI (2044)
XmnI (2040)
2001 TGGCGACCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCCTATAGTGAAGTATTATACTATGCCGATATACTATG
17▶ A V E V L E L D Q Q S I N F T K M

AseI (2106) **SacI (2163)**
2101 CCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCT

SpeI (2261)
2201 ACCGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCATTGACGTCAATGGGGTGG

SnaBI (2389)
2301 AGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGT

NdeI (2494)
2401 ACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATG

2501 ATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTC AATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTC

PacI (2680)

PstI (2673)

SdaI (2672)

BspLU11I (2690)

2601 ATTATTGACGTC AATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGC

2701 AAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCA

2801 AGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGCTTACCG

2901 GATACCTGTCCGCTTTTCTCCCTTCGGGAAGCGTGGCGCTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGG

ApaLI (3004)

3001 CTGTGTGCACGAACCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCA

3101 GCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTAT

3201 TTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTGT

3301 TTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAA

EagI (3440)

PacI (3420) SwaI (3429)

NotI (3439)

3401 GGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGTTTTTTGTGTGAATC

3501 GTAAC TAACATACGCTCTCCATCAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTAT

3601 CGAA