



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

1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Bsu36I (291)

Psp1406I (203)
PvuII (239)
EcoNI (287)

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC

301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535)
AgeI (552)
NcoI (560)
BstEII (555)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCACCATGGGAAGGTGCTATCCAAAATCTTCGGGAACAAGGA

BamHI (605)
NgoMIV (631)
BsrGI (650)
BstEII (675)
XcmI (683)

601 AATGCGGATCCTCATGTTGGCCTGGACGCGGCGGCAAGACAACAATCCTGTACAAGTTGAAGCTGGCCAGTCGGTGACCACCATCCCACTGTGGGT

13▶ M R I L M L G L D A A G K T T I L Y K L K L G Q S V T T I P T V G

701 TTCAACGTGGAGACGGTGACTTACAAAAATGTCAAGTTCAACGTATGGGATGTGGGCGGCCAGGACAAGATCCGGCCGCTCTGGCGGCATTACTACACTG

47▶ F N V E T V T Y K N V K F N V W D V G G Q D K I R P L W R H Y Y T

ClaI (847)
BsrBI (775) **SandI (799)**

801 GGACCCAAGTCTCATCTTCGTAGTGGACTGCGCCGACCGCAGCCGATCGATGAGGCTGCCAGGAGCTGCACCGCATTATCAATGACCGGGAGATGAG

80▶ G T Q G L I F V V D C A D R D R I D E A R Q E L H R I I N D R E M R

BstAPI (930)

901 GGACGCCATAATCCTCATCTTCGCCAACAGCAGGACCTGCCGATGCCATGAAACCCACGAGATCCAGGAGAACTGGGCCTGACCCGGATTCCGGAC

113▶ D A I I L I F A N K Q D L P D A M K P H E I Q E K L G L T R I R D

Bsu36I (1031)
HpaI (1065)

1001 AGGAACTGGTATGTGCAGCCCTCCTGTGCCACCTCAGGGGACGGACTCTATGAGGGGCTCACATGGTTAACCTTAACATAAATCTTAATGAGCATTCT

147▶ R N W Y V Q P S C A T S G D G L Y E G L T W L T S N Y K S •

NheI (1110)
XcmI (1104)
MscI (1116)

1101 CCACCCATCCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAACCCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATT

HpaI (1248)
MfeI (1259)

1201 TGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACAATTGCATTATTTTATGTTTCAGGTTCAAGGGGAGGTGT

EcoRI (1344)

1301 GGGAGGTTTTTTAAAGCAAGTAAACCTCTACAAATGGGTATGGAATTCTAAATAACAGCATAGCAAACTTAACTCCAAATCAAGCCTCTACTTGA

1401 ATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAGATAT

SspI (1583)
Swal (1597)

1501 AGTGTATTTTCCCAAGGTTTGAAGTCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAATATTCAGAAATAATT

1601 TAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGG

1701 GAACAAAGGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTT

141▶ • N R T Y K L P I L E E I T T K

SacI (1858)
BstXI (1887)

1801 TGACCAGCTTGCCATTCATCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCTGTAGGA

125▶ V L K G N M E I 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

1901 TCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCA

92▶ R D V E D S Y P 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

StuI (2022)

2001 CAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGTCCT

58▶ C V T V R G I Y 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

BbsI (2168)
XmnI (2164)

2101 CATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGAGTCGT

25▶ Y L M T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2230)
SacI (2287)

2201 ATTATACTATGCCGATATACTATGCCGATGATTAATTGCAAAACAGCGTGGATGGCGTCTCCAGCTIATCTGACGGTCACTAAACGAGCTCTGCTTAT

SpeI (2385)

2301 ATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAA

2401 CTCCATTGACGTCATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAA

2501 TAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTC

SnaBI (2513)

2601 AATAGGGGGCGTACTTGGCATATGATACACTTGTACTGCCAAGTGGGCAGTTTACCATAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATT

NdeI (2618)

2701 GGCCTTACTATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGTCTTTGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTG

**PstI (2797)
SdaI (2796)**

2801 CAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGAC

PacI (2804) BspLU11I (2814)

2901 GAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTC

3001 CTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGT

ApaLI (3128)

3101 GTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTGAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTA

3201 AGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACT

3301 ACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCAC

3401 CGCTGGTAGCGGTGGTTTTTTTGTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTCTACGGGGTCTGACGCT

PacI (3544) SmaI (3553) NotI (3563)

3501 CAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCAATAAAATATCTTTATTTTATTACATCT

3601 GTGTGTTGGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAAGTGCAAGT

3701 GCAGGTGCCAGAACATTTCTATCGAA