



PvuI (7)
SgfI (6)
EcoNI (96)

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Bsu36I (291)

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)
PstI (578)

AgeI (552)
PshAI (576)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCTACCTGAGATCACCGGTACCATTGGCGCTCTGGGTGACTGCAGTCTGGCTCTTGTCTG
1▶ M A L W V T A V L A L A C

BglII (634)

601 CCTTGGTGGTCTCGCCGCCAGGGCCA GTGCCGAGATCTGTGTCTTCCCTCTGACCCTTAAGGAGCTTATTGAGGAGCTGAGCAACATCACACAAGAC
 13▶ L G G L A A P G P V P R S V S L P L T L K E L I E E L S N I T Q D
 701 CAGACTCCCTGTGCAACGGCAGCATGGTATGGAGTGTGGACCTGGCCGCTGGCGGGTCTGTGTAGCCCTGGATTCCCTGACCAACATCTCCAATTGCA
 47▶ Q T P L C N G S M V W S V D L A A G G F C G V A L D S L T N I S N C
 801 ATGCCATCTACAGGACCCAGAGGATATTGCATGGCCTCTGTAACCGCAAGGCCCACTACGGTCTCCAGCTCCGATACCAAAAATCGAAGTAGCCCA
 80▶ N A I Y R T Q R I L H G L C N R K A P T T V S S L P D T K I E V A H

PvuII (984)
NheI (998)

901 CTTTATAACAAAAGTCTCAGCTACACAAAGCAACTGTTTCGCCACGGCCCTTCTAATGAGGAGAGACCATCCCTGGGCATCTCAGCTGTGGACTCAGC
 113▶ F I T K L L S Y T K Q L F R H G P F •

MscI (1004)

1001 TAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAATTTGTGATGCTATT

HpaI (1136)

1101 GCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAGTTAACAAACAACAAATTGCATTCTTTTATGTTTCAGGTTTCAGGGGAGGTGTGGAGGTTTTTT

EcoRI (1232)

1201 AAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTTAAAATACAGCATAGCAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGA
 1301 GGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTTCC

SapI (1414)
SspI (1471)
SwaI (1485)

1401 CAAGGTTTGAAGTCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATGTAATAATTCAGAAAATAATTTAAATACATCAT
 1501 TGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAAC
 1601 CTTAATAGAAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGC

141▶ • N R T Y K L P I L E E I T T K V L K G

SacI (1746)
BstXI (1775)

1701 CATTATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTC
 121▶ 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 R D V E
 1801 ATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCCAGCAGACAGTACC
 88▶ 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 C V T V

StuI (1910)

1901 CTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGCTCATAGAGCATGG
 54▶ 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 Y L M T

BbsI (2056)
XmnI (2052)

2001 TGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGC
 21▶ I K E T A V E V L E L D Q Q S I N F T K M

AseI (2118)
SacI (2175)

2101 CGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGATGGCGTCTCCAGCTTATCTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCCA

SpeI (2273)

2201 CCGTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAAACTCCCATTTGACG
 2301 TCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTA

SnaBI (2401)

2401 ATACGTAGATGTAAGTCCCAAGTAGGAAAGTCCCATAAGGTCATGTAAGTGGCATAATGCCAGGCGGGCCATTTACCGTCAATGACGTCAATAGGGGGCGT

NdeI (2506)

2501 ACTTGGCATATGATACACTTGTACTGCAAGTGGGCGAGTTTACCCTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATG

PacI (2692)
PstI (2685)
SdaI (2684)

2601 GGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAA

BspLU11I (2702)

2701 GAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAA

2801 AATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTCCCCCTGGAAGCTCCCTCGTGGCTCTCTGTTCCGACCC

2901 TGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCG

ApaLI (3016)

3001 CTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTA

3101 TCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTA

3201 GAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACACCCTGGTAGCGG

3301 TGGTTTTTTTGGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAA

EagI (3452)

PacI (3432) SwaI (3441) **NotI (3451)**

3401 AACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTT

3501 TTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGA

3601 ACATTTCTCTATCGAA