



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

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGGCC
 301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCTCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
 401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

NcoI (560)
BstEII (555)
KasI (535) **AgeI (552)**
 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATTGGAATATCAATCTTCAGTAGAAAATTTGGATGAAGA
 1 M E Y Q S S V E N L D E D

BglII (643)
 601 TGGATATACTCAATTAGACTTCAGCTCTCGCAACATCACAGGAGATCTGTAGTCTCAGAGAAAAGGGCTTTGTGCTGCATCCTCTCATTGGCGTCTGATT
 13 G Y T Q L D F S S R N I T R R S V V S E K G L C A A S S H W R L I

BstAPI (713)
 701 GCTGTGACTCTGGGCATTTTATGCTCAGTGTGCTGGTGATAACTGTGGTCTGAGTACCTCGGGAGTTTTCTCTAGCTCTTGTCCCCCTAACTGGATCA
 47 A V T L G I L C S V M L V I T V V L S T S G V F S S S C P P N W I
 801 CACATGAGGATAGCTGTTATCTATTTAGCACACTATTAGATTCCTGGGATGGAAGTAAAAGACAATGCTTTCAACTGGGCTCTCATCTCTGAAGATAGA
 80 T H E D S C Y L F S T L L D S W D G S K R Q C F Q L G S H L L K I D

NcoI (994)
BstXI (994)
 901 CAGCTCAAAAGAGTTGGAGTTTATATCAAGGCAAGTGTCTCCAGCCTGATCATTCTTTGGATAGGGCTTCTCGCCGTGACAGAGAAGAACCATGG
 113 S S K E L E F I S R Q V S S Q P D H S F W I G L S R R Q T E E P W

BamHI (1088)
 1001 CTCTGGGAGGATGGCTCCACCTTGTGTCTAACCTGTTCCAAATCAGAAGTACAGTTACGAAAAAGACTCATCTCACAAGTGTGCATGGATCCATGTGT
 147 L W E D G S T L L S N L F Q I R S T V T E K D S S H N C A W I H V

MscI (1174)
NheI (1168)
 1101 CAGACATTTACGACCAACTTTGTAGTGTGCATTACATCAGTATTTGTGAGAAGAAGTTGTGAGTATAAGCTAGCTGGCCAGACATGATAAGATACATTGA
 180 S D I Y D Q L C S V H S Y S I C E K K L S V •

1201 TGAGTTTGACAAACCACAACACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAAT

HpaI (1306) MfeI (1317)
 1301 AAACAAGTTAAACAACAACATTCATTCTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTA

EcoRI (1402)
 1401 TGGAAATCTAAAATACAGCATAGCAAACTTTAACCTCCTCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCT

SapI (1584)
 1501 GTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTCTTTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCTATTCTTTA

SspI (1641) SwaI (1655)
 1601 TGTTTTAAATGCACTGACCTCCACATTCCTTTTATGTAATAATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTATTAGGC

EcoO109I (1716)
 1701 AGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTGTGGACTTAGGGAACAAGGAACCTTTAATAGAAATTTGACAGCAAGAAAGCG
 1801 AGCTTCTAGCTTTAGTTCCTGGTACTTGGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAG
 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

SacI (1916) **BstXI (1945)**
 1901 GAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAAT
 111 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 H R V A V I

StuI (2080)
 2001 GGTGTCAAAGTCTTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCTCAATGTGGACAGCA
 78 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 A E I H V A
 2101 GAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGCTCCTATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACAGCT
 44 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 A V E V L E

BbsI (2226)
XmnI (2222) **AseI (2288)**
 2201 CCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAA
 11 L D Q Q S I N F T K M

SacI (2345)
 2301 AACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCACCCTACACGCTACCGCCATTGCGTCAA

2401 TGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGT
SpeI (2443)
←

2501 GAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCCAAGTAGGAAAGT
SnaBI (2571)

2601 CCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGC
NdeI (2676)

2701 CAAGTGGGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGG

2801 CGGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGC
PacI (2862)
PstI (2855)
SdaI (2854)
BspLU11I (2872)
←

2901 CAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAAC

3001 CCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTC

3101 TCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGACGAAACCCCC
ApaLI (3186)

3201 CGTTCAGCCCGACCGCTGCGCCTTATCCGTAAGTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGG

3301 ATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAAGCAGTATTTGGTATCTGCGCTCTGC

3401 TGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTAC

3501 GCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAACTCACGTTAAGGGATTTTGGTCATGGCT

3601 AGTTAATTAACATTTAAATC AGCGGCCGAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCT
EagI (3622)
PacI (3602) SwaI (3611) NotI (3621)

3701 CCATCAAAACAAAACGAAACAAAACAAACTAGCAAAATAGGCTGTCCCAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA