



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAAGTGGCGGGGTAACGGAAAGTGATGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCAGAGGGCTCGCATCTCTCCTTACGCGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGCGTTGAGTCGCGTTTCTGCCGCCTCCCGCCTGTGGTGCCTCCTGAAGCTCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

KasI (535) **SphI (560)** **AgeI (552)** **NcoI (568)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCCCTAGATCACCAGTGCAGCATGCGGCCATGGACTGGTTCCTGGCGTTGGATTATGCT
 601 CATTCTTTTTGCCTGGGGACCTTGTCTTTTTATATAGGTGGTCACTTGGTACGAGATAATGACCATCCTGATCACTCTAGCCGAGAAGTGTCCAAGATT
 13▶ I L F A W G T L L F Y I G G H L V R D N D H P D H S S R E L S K I

BspEI (761)

701 CTGGCAAAGCTTGAACGCTTAAACAGCAGAATGAAGACTTGAGGCGAATGGCCGAATCTCCGGATACCAGAAGGCCCTATTGATCAGGGGCCAGCTA
 47▶ L A K L E R L K Q Q N E D L R R M A E S L R I P E G P I D Q G P A

MluI (810) **XcmI (872)** **BspHI [m] (892)**

801 TAGGAAGAGTACGCGTTTTAGAAGAGCAGCTTGTAAAGCCAAAGAACAGATTGAAAATTACAAGAAACAGACCAGAAATGGTCTGGGGAAGGATCATGA
 80▶ I G R V R V L E E Q L V K A K E Q I E N Y K K Q T R N G L G K D H E
 901 AATCCTGAGGAGGAGGATTGAAAATGGAGCTAAAGAGCTCTGGTTTTCTACAGAGTGAATTGAAGAAATTAAGAAGCTTAGAAGGAAATGAACTCCAA
 113▶ I L R R R I E N G A K E L W F F L Q S E L K K L K N L E G N E L Q
 1001 AGACATGCAGATGAATTTCTTTGGATTAGGACATCATGAAAGGTCTATAATGACGGATCTATACTACCTCAGTCAGACAGATGGAGCAGGTGATTGGC
 147▶ R H A D E F L L D L G H H E R S I M T D L Y Y L S Q T D G A G D W

BglII (1116)

1101 GGGAAAAAGAGGCCAAAGATCTGACAGAAGCTGTTTCCAGCGAGAATAACATATCTTCAGAATCCCAAGGACTGCAGCAAAGCCAAAAGCTGGTGTGTAA
 180▶ R E K E A K D L T E L V Q R R I T Y L Q N P K D C S K A K K L V C N

NdeI (1262)

1201 TATCAACAAAGGCTGTGGCTATGGCTGTGACGTCATCATGTGGTCTACTGCTTCATGATTGCATATGGCACCCAGGAAACACTCATCTTGAATCTCAG
 213▶ I N K G C G Y G C Q L H H V V Y C F M I A Y G T Q R T L I L E S Q

StuI (1339) **BglII (1366)** **PshAI (1385)**

1301 AATTGGCGCTATGCTACTGGTGGATGGGAGACTGTATTTAGGCCTGTAAGTGAGACATGCACAGACAGATCTGGCATCTCCACTGGACTGGTCAAGTG
 247▶ N W R Y A A T G G W E T V F R P V S E T C T D R S G I S T G H W S G
 1401 AAGTGAAGGACAAAATGTTCAAGTGGTCGAGCTTCCATTGTAGACAGTCTTCATCCCGCTCCCATTTACCTTTGGCTGTACCAGAAGACCTCGC
 280▶ E V K D A K N V Q V G E L P I V D S L H P R P P Y L P L A V P E A D L A

BstEII (1522)

1501 AGATCGACTTGTACGAGTGCATGGTGACCTGCAGTGTGGTGGTGTCTCAGTTTGTCAAATACTTGTCCGCCACAGCCTTGGCTAGAAAAAGAAATA
 313▶ D R L V R V H G D P A V W W V S Q F V K Y L I R P Q P W L E K E I
 1601 GAAGAAGCCACCAAGAAGCTTGGCTTCAAACATCCAGTTATTGGAGTCCATGTGACAGCACAGACAAAAGTGGGAACAGAAGCTGCCTTCCATCCATTG
 347▶ E E A T K K L G F K H P V I G V H V R R T D K V G T E A A F H P I

MscI (1778)

1701 AAGAGTACATGGTGCATGTTGAAGAACATTTTTCAGCTTCTTGCACGCAGAATGCAAGTGGACAAAAAAGAGTGTATTTGGCCACAGATGACCCCTTCTT
 380▶ E E Y M V H V E E H F Q L L A R R M Q V D K K R V Y L A T D D P S L

PvuII (1865) **ClaI (1880)** **DraIII (1898)**

1801 ATTAAAGGAGGCAAAAACAAAGTACCCCAATTATGAATTTATTAGTGATAACTCTATTTCTGGTGCAGTGGACTGCACAATCGATACACAGAAAATTCA
 413▶ L K E A K T K Y P N Y E F I S D N S I S W S A G L H N R Y T E N S
 1901 CTTCTGGAGTGTCTGGATATACATTTTCTCTCAGGACACTTCTAGTGTGACTTTTTATCCAGGCTGTGCGAGTTGCTTATGAAATTTATGC
 447▶ L R G V I L D I H F L S Q A D F L V C T F S S Q V C R V A Y E I M
 2001 AAACACTACATCTGATGCCTCTGCAAACCTCCATTCTTTAGATGACATCTACTATTTTGGGGCCAGAATGCCACAATCAAATTTGCCATTTATGCTCA
 480▶ Q T L H P D A S A N F H S L D D I Y Y F G G Q N A H N Q I A I Y A H

NcoI (2126) **EcoRV (2140)**

2101 CCAACCCGAACTGCAGATGAAATTTCCCATGGAACCTGGAGATATCATTGGTGTGGTGGAAATCATTGGGATGGCTATTCTAAAGTGTCAACAGGAAA
 513▶ Q P R T A D E I P M E P G D I I G V A G N H W D G Y S K G V N R K
 2201 TTGGGAAGGACGGCCTATATCCCTCTACAAAGTTCGAGAGAAGATAGAAACGGTCAAGTACCCACATATCCTGAGGCTGAGAAAATAAGCTCAGATG
 547▶ L G R T G L Y P S Y K V R E K I E T V K Y P T Y P E A E K •

MscI (2306)

2301 GCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTA

HpaI (2438) **MfeI (2449)**

2401 TTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACA AATTGCATTCATTTATGTTTCAGGTT CAGGGGAGGTGTGGGAGTTTT

EcoRI (2534)

2501 TTAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTTCAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTGAAATCCTTTTCT

2601 GAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTT

2701 **SspI (2773)** **Swal (2787)**
CCCAAGGTTTGAAGCTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATC

2801 ATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGA

2901 ACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTT
141 • N R T Y K L P I L E E I T T K V L K

3001 GCCATTTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGCTGACCACCCTGATGGATCTGTCCACC
122 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 R D V

3101 TCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTGA
88 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 C V T V

3201 **StuI (3212)**
CCCTGCCAATGTAGGCCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTTGTCTCATAGAGCAT
55 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

3301 GGTGATCTTCTCAGTGGCAGCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCTATAGTGAATGATTACTAT
22 T I K E T A V E V L E L D Q Q S I N F T K M

3401 **AseI (3420)**
GCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCC

3501 **SpeI (3575)**
CACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTG

3600 ACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGA

3700 **SnaBI (3703)**
CTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGG

3800 **NdeI (3808)**
CGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGTACT

3900 **SdaI (3986)****PacI (3994)**
ATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGTCTGTTGGCGGTGACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCCTGCAGGTTA

3998 **BspLU11I (4004)**
ATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTCTGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATC

4098 ACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTTC

4198 GACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTC

4298 **ApaLI (4318)**
GTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCGACCCTGCGCTTATCCGGTAACTATCGTCTTGAAGTGGTGGCCTAACTACGGCTA

4398 ACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTA

4498 CACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGT

4598 AGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCTTTGATCTTTTACGGGTCTGACGCTCAGTGA

4698 **EagI (4754)**
PacI (4734) **Swal (4743)** **NotI (4753)**
ACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGT

4798 GGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTG

4898 CCAGAACATTTCTCTATCGAA