



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
MfeI (82) **EcoNI (96)**
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **PvuII (239)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACACGCCGCCGCCCTACCTGAGGCC
EcoNI (287)
301 GCCATCCACGCCGTTGAGTGCAGTCTGCCGCTCCCGCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **SphI (560)**
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCAGCATGCGGGCATGGACTGGTTCTGGCGTTGGATTATGCT
1▶ M R A W T G S W R W I M L
601 CATTCTTTTTGCCTGGGGACCTGTTATTTTATATAGTGGTTCATTTGGTTCGAGATAATGACCACCCTGATCACTCCAGCAGAGAATCTCCAAGATT
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
701 CTTGCAAAGCTTGAACGCTTAAAACAGCAAAATGAAGACTTGAGGCGAATGGCTGAGTCTCTCCGAATACCAGAAGGCCCATTTGACCAGGGGACAGCTA
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 T A

BspHI [m] (892)
801 CAGGAAGAGTCCGTGTTTTAGAAGAACAGCTTGTAAAGCCAAAGAACAGATTGAAAATTACAAGAAACAAGCTAGAAATGGTCTGGGGAAGGATCATGA
80▶ T G R V R V L E E Q L V K A K E Q I E N Y K K Q A R N G L G K A H E
901 AATCTTAAGAAGGAGGATTGAAAATGGAGCTAAAGAGCTCTGTTTTTCTACAAAGGAACTGAAGAAATTAAGCATTTAGAAGGAAATGAACTCCAA
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 H L E G N E L Q
1001 AGACATGCAGATGAAATCTTTGGATTAGGACACCATGAAAGGTCTATCATGACAGATCTATACTACCTCAGTCAAACAGATGGAGCAGGGGATTGGC
147▶ R H A D E I 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

Bsu36I (1162)
1101 GTGAAAAAGAGGCCAAAGATCTGACAGAGCTGGTCCAGCGGAGAATAACATATCTCCAGAATCTAAGGACTGCAGCAAAGCCAGGAAGCTGGTGTGTAA
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 R K L V C N

BbrPI (1237)
1201 CATCAATAAAGGCTGTGGCTATGGTTGCAACTCCATCACGTGGTCTACTGTTTCATGATTGCTTATGGCACCCAGGCAACACTCATCTTGAATCTCAG
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

BsrGI (1357) **BspLU11I (1354)** **PshAI (1385)**
1301 AATTGGCGCTATGCTACTGGTGGATGGGAGACTGTGTTTAGACCTGTAAGTGAGACATGCTACAGACAGATCTGGCCTCTCCACTGGACACTGGTCAGGTG
247▶ N W R Y A T G G W E T V F R P V S E T C T C T D R S G L S T G H W S G
1401 AAGTAAATGACAAAAACATTCAAGTGGTTCGAGCTCCCATTTGAGACAGCCTCCATCTCGGCCTCTTACTTACCCTGGCTGTTCCAGAAGACCTTGC
280▶ E V N D K N I Q V V E L P I V D S L H P R P P Y L P L A V P E D L A

BstEII (1522) **NcoI (1518)**
1501 AGACCGACTCCTAAGAGTCCATGGTGACCCTGCAGTGTGGTGGGTGCCAGTTTGTCAAATACTTGATTGCTCCACAACCTTGGCTGGAAAAGGAAATA
313▶ D R L L 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 GAAGAAGCCACCAAGAAGCTTGGCTTCAAACATCCAGTATTGGAGTCCATGTGAGACGCACAGACAAAGTGGGAACAGAAGCAGCCTTCCACCCCATCG
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

XmnI (1723)
1701 AGGAGTACATGGTACACGTTGAAGAACATTTTTCAGCTTCTCGCACGCAGAATGCAAGTGGATAAAAAAAGAGTATATCTGGCTACTGATGATCCTACTTT
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 T L

ScaI (1820) **PvuII (1865)**
1801 GTTAAAGGAGGCAAAGACAAAGTACTCCAATTATGAATTTATTAGTGATAACTCTATTTCTGGTCCAGCTGACTACACAATCGGTACACAGAAAATTCA
413▶ L K E A K T K Y S 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 CTTGGGGTGTGATCCTGGATATACACTTTCTCTCACAGGCTGACTTTCTAGTGTGACTTTTTTTCATCCAGGCTGTGCGGGTGTCTTATGAAATCATGC
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 AAACCTGCATCTGATGCCTCTGCGAACTTCCATTCTTTGGATGACATCTACTATTTGGAGGCCAAAATGCCACAATCAGATTGCTGTTTATCCTCA
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 V Y P H

EcoRV (2140)
2101 CAAACCTCGAACTGAAGAGGAAATTCGAATGGAACCTGGAGATATCATTGGTGTGGCTGGAAACCATTGGGATGGTTATTCTAAAGGTATCAACAGAAAA
513▶ K P R T E E E I P M E P G D I I G V A G N H W D G Y S K G I N R K

NheI (2297)
2201 CTTGAAAAACAGGCTTATATCCCTCTACAAAGTCCGAGAGAAGATAGAAAACAGTCAAGTATCCACATATCTGAAGCTGAAAAATAGAGATGAAGCT
547▶ L G K 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 (2303)
2301 AGCTGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGTGAAGAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTG

HpaI (2435) **MfeI (2446)**
2401 CTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTCATTTTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGGTTTTTTA

EcoRI (2531)
2501 AAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACCTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAG
2601 GGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTTTGCAGCCTCACCTCTTTTCATGGAGTTAAGATATAGTGTATTTTCCC

2701 **SspI (2770)** **SwaI (2784)**
 AAGGTTTGAAGTACTCTTCATTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTGTAGTAAAATATTCAGAAATAATTTAAATACATCATT
 2801 GCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAAACAAAGGAACC
 2901 TTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCC
 3001 ATTCACTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGCTGACCACCCTGATGGATCTGTCCACCTCA
 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
 3101 TCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCC
 87 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 R
 3201 **StuI (3209)**
 TGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTCTGATGGCCGCCCGACATGGTGCTTGTTCCTCATAGAGCATGGT
 54 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
 3301 **XmnI (3351)**
 GATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCC
 21 I K E T A V E V L E L D Q Q S I N F T K M
 3401 **AseI (3417)**
 GATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTGCTTATATAGACCTCCCA
 3500 **SpeI (3572)**
 CCGTACACGCCTACCGCCATTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTGATTACTAGTCAAACAACTCCCATTGAC
 3599 GTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACT
 3699 **SnaBI (3700)**
 AATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGTCAATGTAAGTGGGCATAATGCCAGGCGGGCCATTTACCGTATTGACGTCAATAGGGGGCG
 3799 **NdeI (3805)**
 TACTTGGCATATGATACACTTGTATGTAAGTGGCAGTTTACCCTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTAT
 3899 **SdaI (3983)****PacI (3991)**
 GGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCCTAAGTTATGTAACCGCTGCAGGTTAAAT
 3997 **BspLU11I (4001)**
 TAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAC
 4097 AAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGA
 4197 CCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGT
 4297 **ApaLI (4315)**
 TCGCTCAAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGAC
 4397 TTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACA
 4497 CTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTTGTATCCGGCAACAAACACCGCTGGTAG
 4597 CGGTGGTTTTTTTTGTTTCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAC
 4697 **EagI (4751)**
 GAAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTACATTACATCTGTGTGTTGG
 4797 TTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAACGAAACAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCC
 4897 AGAACATTTCTCTATCGAA
PacI (4731) **SwaI (4740)** **NotI (4750)**