



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

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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**Psp1406I (203)**
**HindIII (245)** **Bsu36I (291)**

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC

301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NgoMIV (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

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**NcoI (560)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCCACATGGAAACTCCAAACACCACAGAGGACTATGACACGAC

1 M E T P N T T E D Y D T T

601 CACAGAGTTTGACTATGGGGATGCAACTCCGTGCCAGAAGGTGAACGAGAGGGCCTTTGGGGCCAACTGCTGCCCTCTGTACTCCTTGGTATTTGTC

13▶ T E F D Y G D A T P C Q K V N E R A F G A Q L L P P L Y S L V F V

701 ATTGGCCTGGTTGGAAACATCCTGGTGGTCTGGTCTTGTGCAATACAAGAGGCTAAAAACATGACCAGCATCTACCTCCTGAACCTGGCCATTTCTG

47▶ I G L V G N I L V V L V L V Q Y K R L K N M T S I Y L L N L A I S

**SapI (804)**

801 ACCTGCTCTTCTGTTACGCTTCCCTTCTGGATCGACTACAAGTTGAAGGATGACTGGGTTTTGGTGTGATGCCATGTGTAAGATCCTCTCTGGGTTTTA

80▶ D L L F L F T L P F W I D Y K L K D D W V F G D A M C K I L S G F Y

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**BsrGI (911)**
**Acc65I (953)** **DraIII (970)** **RsrII (994)**

901 TTACACAGGCTTGTACAGCGAGATCTTTTTTCATCATCTGCTGACGATTGACAGGTACCTGGCCATCGTCCACGCCGTGTTGCTTGGCGGCACGGACC

113▶ Y T G L Y S E I F F I I L L T I D R Y L A I V H A V F A L R A R T

**Bsp120I (1034)**
**EcoRI (1090)**

1001 GTCACCTTTGGTGTATCACCAGCATCATCATTGGCCCTGGCCATCTTGGCTTCCATGCCAGGCTTATACTTTTCCAAGACCAATGGGAATTCACCT

147▶ V T F G V I T S I I I W A L A I L A S M P G L Y F S K T Q W E F T

**PstI (1107)**

1101 ACCACACCTGCAGCCTTCACTTTCTCACGAAAGCCTACGAGAGTGGAAGCTGTTTCAGGCTCTGAAACTGAACCTCTTTGGGCTGGTATTGCCTTTGTT

180▶ H H T C S L H F P H E S L R E W K L F Q A L K L N L F G L V L P L L

**BspHI [m] (1202)**
**BspHI [m] (1292)**

1201 GGTGATGATCATCTGCTACACAGGGATTATAAAGATTCTGCTAAGACGACCAAATGAGAAGAAATCCAAAGCTGTCGTTTGTATTTTGTGATCATGATC

213▶ V M I I C Y T G I I K I L L R R P N E K K S K A V R L I F V I M I

1301 ATCTTTTTTCTCTTTTGGACCCCTACAATTTGACTATACTTATTTCTGTTTTTCCAAGACTTCTGTTACCCATGAGTGTGAGCAGAGCAGACATTTGG

247▶ I F F L F W T P Y N L T I L I S V F Q D F L F T H E C E Q S R H L

**BspEI (1484)**

1401 ACCTGGCTGTGCAAGTGACGGAGGTGATCGCTACACGACTGCTGTGCAACCCAGTGATCTACGCCTTCTGTTGGTGTGAGAGGTTCCGGAAAGTACCTGCG

280▶ D L A V Q V T E V I A Y T H C C V N P V I Y A F V G E R F R K Y L R

**ApaLI (1525)**

1501 GCAGTTGTTCCACAGCGCTGTGGCTGTGCACCTGTTAAATGGCTCCCCTTCTCTCCGTGGACAGGCTGGAGAGGGTACGCTCCACATCTCCCTCCACA

313▶ Q L F H R R V A V H L V K W L P F L S V D R L E R V S S T S P S T

**NheI (1651)**

1601 GGGGAGCATGAACTCTCTGCTGGTTCTGACTCAGACCATAGGAGGCCAACGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCA

347▶ G E H E L S A G F •

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**HpaI (1789)**

1701 CAACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAA

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**MfeI (1800)**
**EcoRI (1885)**

1801 CAATTGCATTCATTTTATGTTTCAGGTTACGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACA

1901 GCATAGCAAAACTTAACTCCAATCAAGCCTCTACTGAACTCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGCTGTTGCCAATGTGCATTA

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**SapI (2067)**

2001 GCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGATTTTCCCAAGGTTTGAAGTGTCTTCTTATTTTAAATGCACTGA

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**SspI (2124)**
**Swal (2138)**

2101 CCTCCCACATTCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAA

2201 GGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTT

141 • N

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**SacI (2399)**

2301 CCTGGTGTACTTGAGGGGATGAGTTCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATG

139▶ 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 A Y D S I

**BstXI (2428)**

2401 AGCTCTCTGCACATGCCACAGGGGTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCT

105▶ 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 T D F D K Q

**StuI (2563)**

2501 G C C C G T T G C T C A C A G C A G A C C C A A T G G C A A T G G C T T C A G C A C A G A C A G T G A C C C T G C C A A T G T A G G C C T C A A T G T G G A C A G C A G A G A T G A T C C C C A G T  
72 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 S I I E G T  
2601 C T T G G T C C T G A T G G C C G C C C G A C A T G G T G C T T G T C C T C A T A G A G C A T G G T G A T C T T C T C A G T G G C G A C C T C C A C A G T C C A G A T C C T G C T G A G A G  
39 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 L D Q Q S

**BbsI (2709)**

**XmnI (2705)** **AseI (2771)**

2701 A T G T T G A A G G T C T T C A T G G T G G C C C T C C T A T A G T G A G T C G T A T T A T A C T A T G C C G A T A T A C T A T G C C G A T G A T T A A T T G T C A A A A C A G C G T G G A T G G C G T  
5 I N F T K M

**SacI (2828)**

2801 C T C C A G C T T A T C T G A C G G T T C A C T A A A C G A G C T C T G C T T A T A T A G A C C T C C C A C C G T A C A C G C C T A C C G C C C A T T T G C G T C A A T G G G G C G G A G T T G T T A C

**SpeI (2926)**

2901 G A C A T T T T G G A A A G T C C C G T T G A T T A C T A G T C A A A A C A A A C T C C C A T T G A C G T C A A T G G G G T G G A G A C T T G G A A A T C C C C G T G A G T C A A A C C G T A T C C

**SnaBI (3054)**

3001 A C G C C C A T T G A T G T A C T G C C A A A C C G C A T C A T C A T G G T A A T A G C G A T G A C T A A T A C G T A G A T G T A C T G C C A A G T A G G A A A G T C C C A T A A G G T C A T G T A C

**NdeI (3159)**

3101 T G G C A T A A T G C C A G G C G G G C A T T T A C C G T C A T T G A C G T C A A T A G G G G G C T A C T T G G C A T A T G A T A C A C T T G A T G T A C T G C C A A G T G G G C A G T T T A C C  
3201 G T A A A T A C T C C A C C A T T G A C G T C A A T G G A A A G T C C C T A T T G G C G T T A C T A T G G G A A C A T A C G T C A T T A T T G A C G T C A A T G G G C G G G G T C G T T G G G C G G

**PacI (3345)**

**PstI (3338)** **BspLU11I (3355)**

**SdaI (3337)**

3301 T C A G C C A G G C G G G C A T T T A C C G T A A G T T A T G T A A C G C C T G C A G G T T A A T T A A G A A C A T G T G A G C A A A A G G C C A G A A A A G G C C A G G A A C C G T A A A A A G G  
3401 C C G C G T T G C T G G C G T T T T T C C A T A G G C T C C G C C C C T G A C G A G C A T C A C A A A A T C G A C G C T C A A G T C A G A G G T G G C G A A A C C C G A C A G G A C T A T A A A G  
3501 A T A C C A G G C G T T T C C C C T G G A A G C T C C C T C G T G C G C T C T C T G T T C C G A C C T G C C G T T A C C G G A T A C C T G T C C G C T T T T C C C T T C G G G A A G C G T G

**ApaLI (3669)**

3601 G C G C T T T C T C A T A G C T C A C G C T G T A G G T A T C T C A G T T C G G T G T A G G T C G T T C G T C C A A G T G G G C T G T G T G C A C G A A C C C C G T T C A G C C C G A C C G C T  
3701 G C G C T T A T C C G G T A A C T A T C G T C T T G A G T C C A A C C G G T A A G A C A C G A C T T A T C G C C A C T G G C A G C A G C C A C T G G T A A C A G G A T T A G C A G A G C G A G G T A  
3801 T G T A G G C G G T G C T A C A G A G T T C T T G A A G T G G T G C C T A A C T A C G G C T A C A C T A G A A G A A C A G T A T T T G T A T C T G C G C T C T G C T G A A G C A G T T A C C T T C  
3901 G G A A A A G A G T T G G T A G C T T T G A T C C G G C A A A C A A A C C A C C G C T G G T A G C G G T G T T T T T T T T T G T T G C A A G C A G C A G A T T A C G C G C A G A A A A A A G G A T

**PacI (4085) SwaI (4094)**

4001 C T C A A G A A G A T C C T T T G A T C T T T T C T A C G G G T C T G A C G C T C A G T G G A A C G A A A A C T C A C G T T A A G G G A T T T T G G T C A T G G C T A G T T A A T T A A C A T T T A A

**EagI (4105)**

**NotI (4104)**

4101 A T C A G C G G C C G C A A T A A A A T A T C T T T A T T T T C A T T A C A T C T G T G T T G G T T T T T T G T G T G A A T C G T A A C T A A C A T A C G C T C T C C A T C A A A A C A A A A C G A  
4201 A A C A A A A C A A A C T A G C A A A A T A G G C T G T C C C C A G T G C A A G T G C A G G T G C C A G A A C A T T T C T C T A T C G A A