



**PvuI (7)**  
**SgfI (6)** **MfeI (82)**  
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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**Psp1406I (203)** **HindIII (245)**  
**PvuII (239)** **Bsu36I (291)**  
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGCCGCCGCCCTACCTGAGGCC  
301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NgoMIV (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

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**BspLU11I (560)**  
**AgeI (552)** **Tth111I (583)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTCAACATGTTTTACATCTTCCCTTTGACTGTGCTCCTGCTGCT  
1 M F S H L P F D C V L L L

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**EcoO109I (619)** **BsrBI (641)**  
601 GCTGCTGCTACTACTTACAAGTCTCAGAAGTGAATACAGAGCGGAGTCCGGTCCAGAATGCCTATCTGCCCTGCTTACACCCCAGCCGCCCCAGGG  
13 L L L L L T R S S E V E Y R A E V G Q N A Y L P C F Y T P A A P G  
701 AACCTCGTCCCGCTGTGTTGGGCAAAGGAGCCTGTCTGTGTTGAATGTGGCAACGTGGTGTCTCAGGACTGATGAAAGGGATGTGAATTATTGGACAT  
47 N L V P V C W G K G A C P V F E C G N V V L R T D E R D V N Y W T

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**BsaBI (894)**  
**BamHI (893)**  
801 CCAGATACTGGCTAAATGGGGATTTCCGCAAAGGAGATGTGTCCTGACCATAGAGAATGTGACTCTAGCAGACAGTGGGATCTACTGCTGCCGGATCCA  
80 S R Y W L N G D F R K G D V S L T I E N V T L A D S G I Y C C R I Q

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**BstEII (960)** **PstI (995)**  
901 AATCCCAGGCATAATGAATGATGAAAAATTAACCTGAAGTTGGTCATCAAACAGCCAAAGTCAACCCCTGCACCGACTCGGCAGAGAGACTTCACTGCA  
113 I P G I M N D E K F N L K L V I K P A K V T P A P T R Q R D F T A

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**BsaBI (1069)**  
1001 GCCTTTCCAAGGATGCTTACCACCAGGGGACATGGCCCAGCAGAGACACAGACTGGGGAGCCTCCCTGATATAAAATCTAACACAAATATCCACATTGG  
147 A F P R M L T T R G H G P A E T Q T L G S L P D I N L T Q I S T L

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**XbaI (1117)**  
1101 CCAATGAGTTACGGGACTCTAGATTGGCCAATGACTTACGGGACTCTGGAGCAACCATCAGAATAGGCATCTACATCGGAGCAGGGATCTGTGCTGGGCT  
180 A N E L R D S R L A N D L R D S G A T I R I G I Y I G A G I C A G L  
1201 GGCTCTGGCTCTTATCTTCGGCGCTTAATTTTCAAATGGTATTCTCATAGCAAAGAGAAGATACAGAATTTAAGCCTCATCTCTTGGCCAACCTCCCT  
213 A L A L I F G A L I F K W Y S H S K E K I Q N L S L I S L A N L P

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**Bsu36I (1301)** **EcoRI (1331)**  
1301 CCCTCAGGATTGGCAAATGCAGTAGCAGAGGGAATTCGCTCAGAAGAAAACATCTATACCATTGAAGAGAACGTATATGAAGTGGAGGAGCCCAATGAGT  
247 P S G L A N A V A E G I R S E E N I Y T I E E N V Y E V E E P N E

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**NheI (1483)**  
1401 ATTATTGCTATGTGAGCAGCAGGAGCAACCTCACAACCTTTGGGTTGTCGCTTTGCAATGCCATAGATCCAACCACCTTATGCTAGCTGGCCAGACAT  
280 Y Y C Y V S S R Q Q P S Q P L G C R F A M P •

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1501 GATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTGTGAAATTTGTGATGCTATTGCTTTATTGTGTAACC

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**HpaI (1621)** **MfeI (1632)**  
1601 ATTATAAGCTGCAATAAACAAGTTAAACAACAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACC

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**EcoRI (1717)**  
1701 TCTACAAATGTGGTATGGAATTCAAAAACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCA

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**SapI (1899)**  
1801 TAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAGT

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**SspI (1956)** **SwaI (1970)**  
1901 CTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATGTAATAATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAA

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**EcoO109I (2031)**  
2001 TGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTGTAGTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTG

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2101 GACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCATCTCAATGA  
144 • N R T Y K L P I L E E I T T K V L K G N M E I L

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**SacI (2231)** **BstXI (2260)**  
2201 GCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTG  
116 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 D S Y P H

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**StuI (2395)**  
2301 CCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCCAGCAGACAGTACCCTGCCAATGTAGGCC  
83 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 G I Y A  
2401 TCAATGTGGACAGCAGAGATGATCTCCCGAGTCTGGTCTGATGGCCGCCCGACATGGTGTCTGCTCATAGAGCATGGTGTCTTCTCAGTGG  
49 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 I K E T A

BbsI (2541)  
XmnI (2537)

2501 CGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCG  
16 V E V L E L D Q Q S I N F T K M

AseI (2603) SacI (2660)

2601 ATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCTACTAAACGAGCTCTGCTTATATAGACCTCCCACCGTACACGCCTACC

SpeI (2758)

2701 GCCCATTTCGCTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCCATTGACGTCAATGGGGTGGAGA

SnaBI (2886)

2801 CTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACT

NdeI (2991)

2901 GCCAAGTAGGAAAGTCCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATA

3001 CACTTGATGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATT

PstI (3170) SdaI (3169) BspLU11I (3187)

3101 ATTGACGTCAATGGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCGAGTTAAATTAAGAACATGTGAGCAAA  
CCTGCGCTCTCCTGTTCCGACCCTGCCGCTTACCGGAT

3201 AGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGT

3301 CAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGCTTACCGGAT

3401 ACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTG

ApaLI (3501)

3501 TGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCA

3601 GCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGTACACTAGAAGAACAGTATTTG

3701 GTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGTTTG

3801 CAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACTCACGTTAAGGG

EagI (3937) NotI (3936)

3901 ATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTGTGGAATCGTA  
PacI (3917) SmaI (3926)

4001 ACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGA

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