



**PvuI (7)**  
**SgfI (6)** 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
**MfeI (82)**  
101 GAGAAAGTGGCGCGGGTAAACTGGAAAAGTGTGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACC GTATATAAGTGCAGTAGTCGCC

**HindIII (245)**  
**Psp1406I (203)** 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACGCGCCCGCCGCTACCTGAGGCC  
**PvuII (239)** 301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC  
**Bsu36I (291)**

**NgoMIV (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

**AgeI (552)** **NcoI (560)** **PshAI (576)**  
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCTACCTGAGATCACCGGTCAACATGGCTCGCTCGGTGACCCCTGGTCTTTCTGGTGCTTGT  
1▶ M A R S V T L V F L V L V

**Bst1107I (646)** **SnaBI (697)**  
601 CTCACTGACCGGCTGTATGCTATCCAGAAAACCCCTCAAATCAAGTATACTCACGCCACCCACCGGAGAATGGGAAGCCGAACATACTGAAGTGCCTAC  
13▶ S L T G L Y A I Q K T P Q I Q V Y S R H P P E N G K P N I L N C Y  
701 GTAACACAGTTCACCCGCTCACATTGAAATCAAATGCTGAAGAACGGGAAAAAATTCCTAAAGTAGAGATGTCAGATATGTCCTTCAGCAAGGACT  
47▶ V T Q F H P P H I E I Q M L K N G K K I P K V E M S D M S F S K D

**EcoRI (826)** **PstI (858)**  
801 GGTCTTTCTATATCCTGGCTCACACTGAATTCACCCCACTGAGACTGATACATACGCCCTGCAGAGTTAAGCATGACAGTATGGCCGAGCCCAAGACCGT  
80▶ W S F Y I L A H T E F T P T E T D T Y A C R V K H D S M A E P K T V

**NheI (935)**  
901 C T A C T G G G A T C G A G A C A T G T G A T C A A G C A T C A T G A G C T A G C T G G C C A G A C A T G A T A A G A T A C A T T G A T G A G T T T G G A C A A C C A C A A C T A G A A T G C A G T G  
113▶ Y W D R D M •

**BspLU11I (914)** **BspHI (929)** **MscI (941)**  
1001 AAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAGTTAAACAACAACAAATTGCATTCATTTT

**EcoRI (1169)**  
1101 ATGTTTCAGGTTCCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGGTATGGAATTCTAAAATACAGCATAGCAAACTTTA  
1201 ACCTCAAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCA

**SapI (1351)**  
1301 CCTTCTTCATGGAGTTAAGATATAGTGTATTTCCCAAGGTTGAACTAGCTCTTCATTTCTTTATGTTTTAAATGCAGTACCTCCACATTCCCTT

**SspI (1408)** **SwaI (1422)** **EcoO109I (1483)**  
1401 TTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATAC  
1501 CCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGG  
141▶ • N R T Y K L

**SacI (1683)**  
1601 GGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCATGCTC  
133▶ 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 L E R C M G

**BstXI (1712)**  
1701 CACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGC  
100▶ 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 G N S V A

**StuI (1847)**  
1801 AGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCC  
67▶ 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 K T R I A

**BbsI (1993)** **XmnI (1989)**  
1901 GCCCCGACATGGTGTGTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCA  
33▶ 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 I N F T K M

**AseI (2055)**  
2001 TGGTGGCCCTCTATAGTGAAGTCGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGAC  
0▶

**SacI (2112)**  
2101 GGTTCACTAAACGAGCTCTGTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTC

**SpeI (2210)**  
2201 CCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCTGAGTCAAACCGCTATCCACGCCATTGATGTAC

2301 TGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAAGTCATGTACTGGGCATAATGCCAGG

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**SnaBI (2338)**

2401 CGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACTTGATGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCCA

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**NdeI (2443)**

2501 TTGACGTCAATGGAAAGTCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCA

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**PacI (2629)**

**PstI (2622)**

**SdaI (2621)**

**BspLU11I (2639)**

2601 TTTACCGTAAGTTATGTAACGCTGCAGGTTAATAAGAACATGTGAGCAAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTCTGGCGTT

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2701 TTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCC

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2801 CCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCT

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**ApaI (2953)**

2901 CACGCTGTAGGTATCTCAGTTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAA

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3001 CTATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACA

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3101 GAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTA

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3201 GCTCTTGATCCGGCAAACAACCCAGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTT

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**EagI (3389)**

**PacI (3369) SwaI (3378) NotI (3388)**

3301 GATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATA

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3401 AAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGC

3501 AAAATAGGCTGTCCCAAGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA