



**PvuI (7)**  
**SgfI (6)** **MfeI (82)**  
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGTGCCTA  
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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**Psp1406I (203)** **HindIII (245)**  
**PvuII (239)** **Bsu36I (291)**  
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC  
301 GCCATCCACGCCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC  
401 GGGCCTTTGTCCGGGCTCCCTTGAGGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

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**KasI (535)** **NcoI (560)**  
**BstEII (555)** **MluI (587)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTACCATTGGCCTCGTACCCCGCCATCAACACGCGTCTGCGTT  
1▶ M A S Y P G H Q H A S A F

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**BsiWI (637)** **BstAPI (690)**  
601 CGACCAGGCTGCGGTTCTCGCGCCATAGCAACCGACGTACGGCGTTGCGCCCTCGCCGGCAGCAAGAAGCCACGGAAGTCCGCCCCGAGCAGAAAATG  
13▶ D Q A A R S R G H S N R R T A L R P R R Q Q E A T E V R P E Q K M

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**XcmI (755)** **EcoRV (790)** **SnaBI (799)**  
701 CCCACGCTACTGCGGTTTATATAGACGGTCCCCACGGGATGGGAAAACCACCACCAGCAACTGCTGGTGGCCCTGGGTTCCGCGGACGATATCGTCT  
47▶ P T L L R V Y I D G P H G M G K T T T T Q L L V A L G S R D D I V

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**NruI (851)** **EcoRV (894)**  
801 ACGTACCCGAGCCGATGACTTACTGGCGGTGCTGGGGGCTTCCGAGACAATCGGAACATCTACACCACACAACACCCGCTCGACCAGGGTGAGATATC  
80▶ Y V P E P M T Y W R V L G A S E T I A N I Y T T Q H R L D Q G E I S

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**SphI (947)**  
901 GGCCGGGACGCGCGGTGTAATGACAAGCGCCAGATAACAATGGGCATGCTTATGCCGTGACCGACGCCGTTTGGCTCCTCATATCGGGGGGAG  
113▶ A G D A A V V M T S A Q I T M G M P Y A V T D A V L A P H I G G E

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**Acc6I (1088)**  
1001 GCTGGGAGCTCACATGCCCGCCCGCCCTCACCTCATCTTCGACCGCCATCCCATCGCCGCCCTCCTGTGCTACCCGGCCGCGCGGTACCTTATGG  
147▶ A G S S H A P P P A L T L I F D R H P I A A L L C Y P A A R Y L M

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**BspEI (1185)**  
1101 GCAGCATGACCCCCAGGCCGTGCTGGCGTTCTGGCCCTCATCCCGCCGACCTTGGCCGGCACCAACATCGTGTGGGGCCCTTCCGGAGGACAGACA  
180▶ G S M T P Q A V L A F V A L I P P T L P G T N I V L G A L P E D R H

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**BsrBI (1234)**  
1201 CATCGACCGCTGGCCAAACGCCAGCGCCCGGCGGCTGGACCTGGCTATGCTGGCTGCGATTGCGCGGTTTACGGGCTACTTGCCAATACGGTG  
213▶ I D R L A K R Q R P G E R L D L A M L A A I R R V Y G L L A N T V

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**PstI (1306)**  
1301 CGGTATCTGCAGTGGCGGGTCTGGCGGGGAGGACTGGGGACAGCTTTCGGGGACGGCCGTGCCGCCCCAGGGTGCCGAGCCCCAGAGCAACGCGGGCC  
247▶ R Y L Q C G G S W R E D W G Q L S G T A V P P Q G A E P Q S N A G

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1401 CACGACCCATATCGGGGACACGTTATTTACCCTGTTTCGGGCCCCGAGTTGCTGGCCCCAACGGCGACCTGTATAACGTGTTTGCCTGGGCTTGGGA  
280▶ P R P H I G D T L F T L F R A P E L L A P N G D L Y N V F A W A L D

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1501 CGTCTGGCCAAACGCTCCGTTCCATGCAGCTTTATCCTGGATTACGACCAATCGCCCGCGGCTGCGGGACGCCCTGCTGCAACTTACCTCCGGG  
313▶ V L A K R L R S M H V F I L D Y D Q S P A G C R D A L L Q L T S G

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**PshAI (1608)** **BssHIII (1654)** **XmaI (1667)** **EcoRI (1693)**  
1601 ATGGTCCAGACCCACGTACCACCCCGGCTCCATACCGACGATATGGACCTGGCGGCACGTTTGGCCGGGAGATGGGGGAGGCTAACTGAGAATTCG  
347▶ M V Q T H V T T P G S I P T I C D L A R T F A R E M G E A N •

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1701 CTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTAT

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**HpaI (1837)** **MfeI (1848)**  
1801 TGCTTTATTTGTAACCATTATAAGTGAATAAACAAGTTAAACAACAATTGCATTATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTT

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**EcoRI (1933)**  
1901 TAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTG  
2001 AGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAGATATAGTGTATTTTC

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**SapI (2115)** **SspI (2172)** **SwaI (2186)**  
2101 CCAAGTTTGAACAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATAGTAAAATATTCAGAAAATAATTTAAATACATCA  
2201 TTGCAATGAAAATAAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTATGAGTTGGACTTAGGGAACAAAGGAA  
2301 CCTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGTTGTAAGTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTG  
141▶ • N R T Y K L P I L E E I T T K V L K

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**BstXI (2476)**  
2401 CCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCT  
121▶ 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 E

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2501 CATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGCAATGGCAATGGCTTCAGCAGACAGCTGAC  
88▶ 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

2601 **StuI (2611)**  
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

2701 **BbsI (2757)**  
**XmnI (2753)**  
21 T I K E T A V E V L E L D Q Q S I N F T K M

2801 **AseI (2819)**  
CCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCC

2901 **SpeI (2974)**  
ACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGAC

3001 GTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACT

3101 **SnaBI (3102)**  
AATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCACTGACTGGGCATAATGCCAGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCG

3201 **NdeI (3207)**  
TACTTGGCATATGATACACTTGATGTAAGTGGCAGTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTAT

3301 **PacI (3393)**  
**PstI (3386)**  
**SdaI (3385)**  
GGGAACATACGTCAATTATTGACGTCAATGGGGGGGGTCTGGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAAATTA

3401 **BspLU11I (3403)**  
AGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAA

3501 AAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAAGCTCCCTCGTGGCTCTCCTGTTCCGACC

3601 CTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGGTAGGTCGTTCC

3701 **ApaLI (3717)**  
GCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTT

3801 ATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACT

3901 AGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCG

4001 GTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGA

4101 **PacI (4133)** **Swal (4142)** **NotI (4152)**  
AAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAATATCTTTATTTTCATTACATCTGTGTGTTGGTT

4201 TTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAG

4301 AACATTTCTCTATCGAA