



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

1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGGCCCGCCCTACCTGAGGCC  
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCCTCCCGCCTGTGGTGCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NgoMIV (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTCTTTGTTTCGTTT

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**KasI (535)**
**AgeI (552)** **BspHI (560)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTCATCATGAGCCACAATTCTCAAGCCTTCTTGTCCACCAATGC  
1▶ M S H N S Q A F L S T N A

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**PvuII (671)**

601 CGGGCTTCTCCAAGCTATGAGACAATCAAAGAGAGTACGGGGTACTGAGCTGGGGGAACCCAGCAACTCAGCTGTTGTGAGACCACCGTGATCAAC  
 13▶ G L P P S Y E T I K E E Y G V T E L G E P S N S A V V R T T V I N  
 701 ATGCCAGAGAGGTGTCGGTGCCTGACCATGTGGTCTGGTCCCTGTTCAATACACTCTTCTTCAACGCCTGCTGCCTGGGCTTCTGTTGCCTATGCCTACT  
 47▶ M P R E V S V P D H V V W S L F N T L F F N A C C L G F V A Y A Y

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**StuI (848)**

801 CTGTGAAGTCTAGGGACAGGAAGATGGTGGCGATGTGGTTGGAGCCAGGCCTACGCCCTCCACTGCCAAGTGCCTGAATATCAGCTCCCTGATCTTTCAG  
 80▶ S V K S R D R K M V G D V V G A Q A Y A S T A K C L N I S S L I F S

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**BstXI (938)**

901 CATCCTTATGGTCATTATCTGCATCATTATTTCTTACCACCTCTGTGGTAGTCTTTCAGTCTTTTGACAAAGAACACCCCATCTGGATTCTAGCTG  
 113▶ I L M V I I C I I I F S T T S V V V F Q S F A Q R T P H S G F •

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**MscI (1012)**
**NheI (1006)**

1001 CCCTGTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTG

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**HpaI (1144)** **MfeI (1155)**

1101 ATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCTTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGA

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**EcoRI (1240)**

1201 GGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCC  
 1301 TTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTCATGGAGTTTAAAGATATAGT

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**SapI (1422)**
**SspI (1479)** **SwaI (1493)**

1401 TATTTTCCAAGTTTGAAGTAGCTCTTCATTTCTTTATGTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAAATTCAGAAATAATTTAAA

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**EcoO109I (1554)**

1501 TACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAAC  
 1601 AAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTTCTCAATGGTGGTTTTGAC  
141▶ • N R T Y K L P I L E E I T T K V

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**SacI (1754)** **BstXI (1783)**

1701 CAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTG  
 124▶ L K 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  
 1801 TCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTACGACAGA  
 90▶ D V E 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

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**StuI (1918)**

1901 CAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTGTTGTCCTCATA  
 57▶ T V 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

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**BbsI (2064)**

2001 GAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCCTATAGTGAGTCGTATTA  
 24▶ L M T I K E T A V E V L E L D Q Q S I N F T K M

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**AseI (2126)**
**SacI (2183)**

2101 TACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAG

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**SpeI (2281)**

2201 ACCTCCCACGCTACAGCCTACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCC  
 2301 CATTGACGTCATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCAGCCCATTTGATGTACTGCCAAAACCGCATCATCATGGTAATAGC

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**SnaBI (2409)**

2401 GATGACTAATACGTAGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTAAGTGGGATAATGCCAGCGGGCCATTTACCGTCAATTGACGTCAATA

2501 **NdeI (2514)**  
GGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCG

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2601 **PstI (2693)**  
**SdaI (2692)**  
TTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGACCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGG

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2701 **PacI (2700)** **BspLU11I (2710)**  
TTAATTAAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGC

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2801 ATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCGCTCTCCTGT

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2901 TCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGGTGAG

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3001 **ApaI (3024)**  
GTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTGAGCCGACCGCTGCGCCTTATCCGTAACATATCGTCTTGAGTCCAACCCGGTAAGAC

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3101 ACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGCCTAACTACGG

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3201 CTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCT

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3301 GGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGT

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3401 **EagI (3460)**  
**PacI (3440)** **SwaI (3449)** **NotI (3459)**  
GGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGT

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3501 GTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAG

3601 GTGCCAGAACATTTCTCTATCGAA