



**PvuI (7)**  
**SgfI (6)** **MfeI (82)**  
1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAAGTGGCGCGGGTAAACTGGAAAAGTGTGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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**HindIII (245)** **Bsu36I (291)**  
**Psp1406I (203)** **PvuII (239)**  
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCGCCCTACCTGAGGCC  
301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NgoMIV (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTGCCTGACCCTGCTTGTCAACTCTACGCTTTGTTTCGTTT

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**BstEII (555)**  
**AgeI (552) NcoI (560)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCACCATGGCTCCGGTTGGCCGCGGTCTCTGCCGAGATCCT  
1 ▶ M A P G W P R S L P Q I L  
EagI (635)

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**BssHII (627)**  
601 CGTGTGGGATTCGGCTTGGTGTGATGCGCGCCGGCCGGGGAGCAAGCACCAGGCACCTCCCATGCTCTAGCGGACGCTCTGGAGCGCGGACCTC  
13 ▶ V L G F G L V L M R A A A G E Q A P G T S P C S S G S S W S A D L  
**BstAPI (707)** **BstAPI (769)**  
701 GACAAGTGCATGGACTGCGCTTCTGTCCAGCGCACCACACAGCAGCTTCTGCTGGGATGCGCCGACGACCTCTGCCACTTCAGGCTACTGTGGC  
47 ▶ D K C M D C A S C P A R P H S D F C L G C A A A P P A H F R L L W  
801 CCATTCTGGGGGCGCTCTAGTCTGCTGCTGTTTGGCGCTGGTTTCTAGTTTCTGGTCTGGAGAAGATGCCCGGAGAGAAAAGTTTACTACCCC  
80 ▶ P I L G G A L S L V L V L A L V S S F L V W R R C R R R E K F T T P  
**MscI (968)**  
**NheI (962)**  
901 CATAGAGGAGACTGGTGGAGAGGGCTGCCAGGTGGCACTGATCCAGTGAAGAGCACCCGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTT  
113 ▶ I E E T G G E G C P G V A L I Q •  
1001 TGGACAAACCACAACCTAGAATGCAGTAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAA

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**HpaI (1100)** **MfeI (1111)** **EcoRI (1196)**  
1101 GTTAACAACAACAAATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAA  
1201 TCTAAATACAGCATAGCAAACTTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCC

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**SapI (1378)**  
1301 AATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAACACTGCTTTCATTTCTTTATGTTTT

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**SspI (1435)** **SwaI (1449)**  
1401 AAATGCACTGACCTCCACATTCCTTTTTAGTAAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTTATTAGGCAGAATC

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**EcoO109I (1510)**  
1501 CAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTC  
1601 TAGCTTTAGTTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCAT  
141 ▶ • N 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  
**SacI (1710)** **BstXI (1739)**  
1701 AGTCAGAGATGAGCTCTGACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTG  
109 ▶ 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 R V A V I T D  
**StuI (1874)**  
1801 AAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATG  
76 ▶ 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 G E I H V A S I  
1901 ATCTCCCACTTGGTCTGATGGCCGCCGACATGGTGTGTTGCTCCTCATAGAGATGGTGTCTTCTCAGTGGCGACCTCCACAGCTCCAGAT  
42 ▶ 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 V E V L E L D  
**BbsI (2020)** **AseI (2082)**  
**XmnI (2016)**  
2001 CCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGC  
9 ▶ Q Q S I N F T K M  
**SacI (2139)**  
2101 GTGGATGGCGTCTCCAGCTTATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTCGCTCAATGGGGC

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**SpeI (2237)**  
2201 GGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAACTCCCATGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCA

2301 AACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATA  
**SnaBI (2365)**

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2401 AGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTG  
**NdeI (2470)**

2501 GGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGG  


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2601 TCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAA  
**Pacl (2656)**  
**PstI (2649)**  
**SdaI (2648)**      **BspLU11I (2666)**

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2701 CCGTAAAAAGGCCGCGTTGCTGGCGTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACA  


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2801 GGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGTCTCTGTCCGACCTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTT  


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2901 CGGGAAGCGTGCGCTTTCTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCA  
**ApaLI (2980)**

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3001 GCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGC  


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3101 AGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGC  


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3201 CAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTTGTTCGCAAGCAGCAGATTACGCGCAG  


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3301 AAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAA  
**Pacl (3396)**

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3401 TTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGGTTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCA  
**EagI (3416)**  
**SwaI (3405)**      **NotI (3415)**

3501 AAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCCAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA