



**PvuI (7)**  
**SgfI (6)** **MfeI (82)**  
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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**Psp1406I (203)** **HindIII (245)** **Bsu36I (291)**  
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACGCGCCCGCCGCTACCTGAGGCC  
301 GCCATCCACGCGGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAAGTGCCTCCGCGCTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NgoMI (441)**  
**NaeI (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTGTTTCGTTT

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**KasI (535)** **AgeI (552)** **NcoI (560)**  
**BstEII (555)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACACCTGAGTTCACAGGCCAGGTTCTTATGTTACTGCTGCT  
1▶ M D S Q A Q V L M L L L L

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**Asp718I (610)**  
**Acc65I (610)**  
601 ATGGGTATCTGGTACCTGTGGGACTTGC AAAATGTCGAGCTGGAACGCAACATAGAGACCATCATCAACACCTTCCACCAATACTCTGTGAAGCTGGGG  
13▶ W V S G T C G T C K M S Q L E R N I E T I I N T F H Q Y S V K L G

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**EcoRI (724)** **BglIII (747)**  
701 CACCCAGACACCCCTGAACCAGGGGAATTC AAAAGAGCTGGTGC AAAAAGATCTGCAAAAATTTCTCAAGAAAGGAGAATAAGAATGAAAAGGTCATAGAAC  
47▶ H P D T L N Q G E F K E L V R K D L Q N F L K K E N K N E K V I E  
801 ACATCATGGAGGACCTGGACACAATGCAGACAAGCAGCTGAGCTTCGAGGAGTTCATCATGCTGATGGCAGGCTAACCTGGGCTCCACGAGAAGAT  
80▶ H I M E D L D T N A D K Q L S F E E F I M L M A R L T W A S H E K M

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**Bsp120I (915)** **StuI (939)** **Eco147I (939)** **NheI (983)**  
901 GCACGAGGGTGACGAGGGCCCTGGCCACCACATAAGCCAGGCCTCGGGAGGGCACCCCTAAGACCACAGTGGCCAAGATCGTAGCTGGCCAGACAT  
113▶ H E G D E G P G H H H K P G L G E G T P •  
1001 GATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACC

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**HpaI (1121)** **MfeI (1132)**  
1101 ATTATAAGCTGCAATAAAACAAGTTAAACAACAACATTGCATTCATTTTATGTTTCAGGTTTCAGGGGGAGGTGGGAGGTTTTTAAAGCAAGTAAAACC

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**EcoRI (1217)**  
1201 TCTACAAATGTGGTATGGAATTTAAAATACAGCATAGCAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCA  
1301 TAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTCCCAAGGTTTGAAGTAC

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**SspI (1456)** **SwaI (1470)**  
1401 CTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAAATAATTTAAATACATCATTGCAATGAAAATAAA  
1501 TGTTTTTTATTAGGCAGAATCCAGATGCCTAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAAATTG  
1601 GACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTTCATCTCAATGA  
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

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**SacI (1731)** **BstXI (1760)**  
1701 GCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTG  
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 (1895)**  
**Eco147I (1895)**  
1801 CCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCC  
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  
1901 TCAATGTGGACAGCAGAGATGATCTCCCAAGTCTGGTCTGATGGCCGCCGACATGGTGTGTTGCTCCTCATAGAGCATGGTATCTTCTCAGTGG  
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

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**XmnI (2037)**  
2001 CGACCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTTCTTATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCG  
16▶ V E V L E L D Q Q S I N F T K M

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**VspI (2103)** **SacI (2160)**  
**AseI (2103)**  
2101 ATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACC

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**SpeI (2258)**  
2201 GCCCATTTCGCTCAATGGGGCGGAGTTGTTACGACATTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTCAGTCAATGGGGTGGAG

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**SnaBI (2386)**  
**Eco105I (2386)**  
2300 ACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAC

NdeI (2491)

2400 TGCCAAGTAGGAAAGTCCATAAGGTCATGTA CTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGAT

2500 ACAC TTGATGTA CTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAT

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PstI (2670)  
SdaI (2669) PacI (2677) BspLU11I (2687)

2600 TATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGC

2698 AAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAGAAAAATCGACGCTCA

2798 AGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCCGACCCTGCCGTTACCG

2898 GATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGG

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ApaLI (3001)

2998 CTGTGTGCACGAACCCCCGTT CAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCA

3098 GCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTAT

3198 TTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTGT

3298 TTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACTCACGTTAA

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EagI (3437)  
PacI (3417) SwaI (3426) NotI (3436)

3398 GGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATC

3498 GTAAC TAACATACGCTCTCCATCAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTAT

3598 CGAA