



100

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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGGCC

301 GCCATCCACGCGGTTGAGTGCCTGTTGCGCCCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NgoMI (441)** **NaeI (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTCTTTGTTTCGTTT

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**KasI (535)**
**AgeI (552)** **BspLU11I (560)**

501 TCTGTTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCAACATGTGCTCCAGAGGTTGGGATTCTGCTGCTGGCTCTGGA

1 M C S R G W D S C L A L E

**PshAI (660)**

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**BstEII (627)**
**NdeI (655)**

601 ATTGCTACTGCTGCTCTGTCACTCCTGGTGACCAGCATTCAAGGTCACCTGGTACATATGACCGTGGTCTCCGGCAGCAACGTGACTCTGAACATCTCT

13 L L L L P L S L L V T S I Q G H L V H M T V V S G S N V T L N I S

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**ScaI (785)**

701 GAGAGCCTGCCTGAGAACTACAAACAACAACTGTTTATACTTTGACCAGAAGATTGTAGAATGGGATTCCAGAAAATCTAAGTACTTTGAATCCA

47 E S L P E N Y K Q L T W F Y T F D Q K I V E W D S R K S K Y F E S

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**BsrGI (842)**
**BspHI (884)**

801 AATTTAAAGCGAGGTCAGACTTGATCCTCAGAGTGGCGCACTGTACATCTCTAAGTCCAGAAAGAGGACAACAGCACCTATATCATGAGGGTGTGAA

80 K F K G R V R L D P Q S G A L Y I S K V Q K E D N S T Y I M R V L K

901 AAAGACTGGGAATGAGCAAGAATGGAAGATCAAGCTGCAAGTGCCTGACCCTGTACCAAGCCTGTATCAAAATGAGAAGATAGAAGACATGGATGAC

113 K T G N E Q E W K I K L Q V L D P V P K P V I K I E K I E D M D D

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**EcoO109I (1069)**

1001 AACTGTTATCTGAAACTGTCATGTGTGATACTGGCGAGTCTGTAAACTACACCTGGTATGGGGACAAAAGGCCCTTCCCAAAGGAGCTCCAGAACAGTG

147 N C Y L K L S C V I P G E S V N Y T W Y G D K R P F P K E L Q N S

1101 TGCTTGAACACCCTTATGCCACATAATTACTCCAGGTGTTATACTTGCAGTCAAGTCAATCTGTGAGCAGCAAGAATGGCAGGCTGCCTCAGTCC

180 V L E T T L M P H N Y S R C Y T C Q V S N S V S S K N G T V C L S P

1201 ACCCTGTACCCTGGCCCGGCTCTTTGGAGTAGAATGGATTGCAAGTGGCTAGTGGTACCGGTGCCACCATTCTGGCTGTACTTACCTGAGATGAG

213 P C T L A R S F G V E W I A S W L V V T V P T I L G L L L T •

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**MscI (1336)** **NheI (1330)**

1301 CTCTTTAACTCAAGCGAACTTCAAGCCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAAAAA

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**HpaI (1468)** **MfeI (1479)**

1401 AATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTTATGTT

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**EcoRI (1564)**

1501 TCAGGTTTCAGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAAACTTTAACCTC

1601 CAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTC

1701 TTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTGTCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATG

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**SspI (1803)** **SwaI (1817)**
**EcoO109I (1878)**

1801 TAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCCA

1901 GTTTAGTAGTTGGACTTAGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTTGAGGGGAT

141 • N R T Y K L P I

2001 GAGTTCCTCAATGGTGGTTTTGACCAGCTTCCATTCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAG

132 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 C

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**BstXI (2107)**

2101 GGGCTGACCACCTGATGGATGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACC

98 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 S G

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**StuI (2242)** **Eco147I (2242)**

2201 CAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGTATGGCCGCCCC

65 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 A G

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**BspHI (2392)** **XmnI (2384)**

2301 GACATGGTGTCTTTGTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTTCTCATGATG

32 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

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**VspI (2450)** **AseI (2450)**

2401 GCCCTCTATAGTGCATGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTC

2501 ACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTT

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2601 **SpeI (2605)**  
GATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCC

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2700 **SnaBI (2733)**  
**Eco105I (2733)**  
AAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGG

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2800 **NdeI (2838)**  
CCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCCTAAATACTCCACCCATTGA

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2900 CGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTA

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3000 **PstI (3017)**  
**SdaI (3016)****PacI (3024)** **BspLU11I (3034)**  
CCGTAAGTTATGTAACGCC T G C A G G T T A A T T A A G A A C A T G T G A G C A A A A G G C C A G C A A A A G G C C A G G A A C C G T A A A A A G G C C G G T T G C T G G C G T T T T

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3098 TCCATAGGCTCCGCCCCCTGACGAGCATCAGAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCC

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3198 TGGAAAGTCCCTCGTGGCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCA

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3298 **ApaLI (3348)**  
CGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACT

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3398 ATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGA

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3498 GTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGC

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3598 TCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGA

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3698 **EagI (3784)**  
**PacI (3764)** **SwaI (3773)** **NotI (3783)**  
TCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGAATAAA

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3798 ATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAA

3898 AATAGGCTGTCCCAGTGCAGGTGCCAGAACATTTCTCTATCGAA