



100

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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA  
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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**HindIII (245)**
**Bsu36I (291)**

**Psp1406I (203)**
**PvuII (239)**
**EcoNI (287)**

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCAGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC  
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NaeI (441)**  
**NgoMIV (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGTCTTTGTTTCGTTT

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**KasI (535)**
**AgeI (552)**
**BspHI (568)**

501 TCTGTTTGGCGCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTAGGAGGGCCATCATGATTGACAGACAGAGAATGGGACTTTGG  
11▶ M I D R Q R M G L W  
601 GCTTTGGCAATTCTGACACTTCCATGTATTTGACAGTTACGGAGGGCAGTAAATCGTCTGGGGTCTGGAAAATGAGGCTTTAATTGTGAGATGCCCCC  
11▶ A L A I L T L P M Y L T V T E G S K S S W G L E N E A L I V R C P

**XmnI (750)**

701 AAAGAGGACGCTCGACTTATCCTGTGGAATGGTATTACTCAGATACAAATGAAAGTATTCCTACTCAAAAAAGAAATCGGATCTTTGTCTCAAGAGATCG  
44▶ Q R G R S T Y P V E W Y Y S D T N E S I P T Q K R N R I F V S R D R  
801 TCTGAAGTTTCTACCAGCCAGAGTGAAGACTCTGGGATTTATGCTTGTGTTATCAGAAGCCCCAACTGAATAAGACTGGATACTTGAATGTCACCATA  
77▶ L K F L P A R V E D S G I Y A C V I R S P N L N K T G Y L N V T I  
901 CATAAAAAAGCCGCAAGCTGCAATATCCCTGATTATTTGATGACTCGACAGTACGTGGATCAGATAAAAAATTTCAAGATAACGTGTCCAACAATTGACC  
111▶ H K K P P S C N I P D Y L M Y S T V R G S D K N F K I T C P T I D  
1001 TGTATAATTGGACAGCACCTGTTCAAGTGGTTAAGAAGCTCCTCAAGAGCCAAAGTTTCAGGGCACACAGGTCCTACTTGTTCATTGACAACGT  
144▶ L Y N W T A P V Q W F K N C K A L Q E P R F R A H R S Y L F I D N V

**BspHI (1103)**
**BbrPI (1140)**

1101 GACTCATGATGATGAAGGTGACTACACTTGTCAATTCACACACGTGGAGAATGGAACCAACTACATCGTGACC GCCACCAGATCATTACAGTTGAAGAA  
177▶ T H D D E G D Y T C Q F T H V E N G T N Y I V T A T R S F T V E E  
1201 AAAGGCTTTTCTATGTTTCCAGTAATTACAAATCCTCCATACAACCACACAATGGAAGTGAAGTGAAGAAAACAGCAAGTATTGCTGTTGAGCTTGTCT  
211▶ K G F S M F P V I T N P P Y N H T M E V E I G K P A S I A C S A C

**EcoRI (1378)**

1301 TTGGCAAAGGCTCTCACTTCTGGCTGATGTCCTGTGGCAGATTAACAAAACAGTAGTTGAAATTTTGGTGAAGCAAGAATTCAGAAAGAGGAAAGTGC  
244▶ F G K G S H F L A D V L W Q I N K T V V G N F G E A R I Q E E E G R

**XcmI (1411)**

1401 AAATGAAAGTTCCAGCAATGACATGAGTATGTTTAACTCAGTGTAAAGGATAACTGGTGTGACAGAAAAGGACCTGTCCTGGAATATGACTGTCTGGCC  
277▶ N E S S S N D M D C L T S V L R I T G V T E K D L S L E Y D C L A

**NheI (1598)**

1501 CTGAACCTTCATGGCATGATAAGGCACACCATAAGACTGAGAAGGAAACAACCAAGTAAGGAGTGTCCCTCACACATTGCTTGAATAAAT GGCTGAATGC  
311▶ L N L H G M I R H T I R L R R K Q P S K E C P S H I A •

**MscI (1604)**

1601 TAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATT

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**HpaI (1736)**

1701 GCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACCAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTT

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**EcoRI (1832)**

1801 AAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTCATAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGA  
1901 GGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGTATTTC

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**SspI (2071)**
**SwaI (2085)**

2001 CAAGGTTTGAAGTCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATGTAATAATTCAGAAATAATTTAAATACATCAT  
2101 TGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAAC  
2201 CTTAATAGAAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGC  
141▶ N R T Y K L P I L E E I T T K V L K G

**SacI (2346)**
**BstXI (2375)**

2301 CATTTCATCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTGTCACATGCCACAGGGGCTGACACCCTGATGGATCTGTCCACCTC  
121▶ 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  
2401 ATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGCAATGGCTTCAGCAGACAGTGAAC  
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

**StuI (2510)**  
**Eco147I (2510)**

2501 CTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGCTCCTCATAGAGCATGG  
54▶ 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 T

**BspHI (2660)**

**XmnI (2652)**

2601 TGATCTTCTCAGTGGCGACTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGC  
21▶ I K E T A V E V L E L D Q Q S I N F T K M

2701 **AseI (2718)** **SacI (2775)**  
 CGATATACTATGCCGATGATTAATTGTCAA AACAGCGTGGATGGCGTCTCCAGC T TATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCCA

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2801 **SpeI (2873)**  
 CCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCCATTGAC

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2900 GTCAATGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACT

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**SnaBI (3001)**  
**Eco105I (3001)**  
 3000 AATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTACTGTACTGGGCATAATGCCAGGCGGGCCATTACCCTCATTGACGTCAATAGGGGGCG

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**NdeI (3106)**  
 3100 TACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCCTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTAT

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**PstI (3285)**  
**SdaI (3284)****PacI (3292)**  
 3200 GGGACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCCTAAGTTATGTAACGCTGCAGGTTAA T

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**BspLU11I (3302)**  
 3298 TAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGCGCGTGTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAC

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3398 AAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCCGA

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3498 CCTGCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGT

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**ApaLI (3616)**  
 3598 TCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGAC

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3698 TTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACA

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3798 CTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGA AAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCCGCTGGTAG

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3898 CGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAC

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**EagI (4052)**  
**PacI (4032)** **SwaI (4041)** **NotI (4051)**  
 3998 GAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCCAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGG

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4098 TTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCC

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4198 AGAACATTTCTCTATCGAA