



100

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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA  
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC  
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

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

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTA CCTGAGATCACCGGTCATCATGACAGATGACAAAGATGTGCTTCGAGATGTGTGGTT  
1▶ M T D D K D V L R D V W F

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**EcoRI (605)**

601 TGGACGAATTCCTCACTTCTCTATCAGGATGAGATAACTGAAAGAGAAGCAGAACCATACTATTTGCTTTTCCCAAGAGTCAGCTATTTGACG  
 13▶ G R I P T C F T L Y Q D E I T E R E A E P Y Y L L L P R V S Y L T  
 701 TTGGTAACTGACAAAGTGAAGCACTTTAGAGAGGTTATGAGACAAGAAGATGTTAGTGAGATATGGTTTGAATATGAAGGCACACCCCTGAAATGGC  
 47▶ L V T D K V K K H F Q K V M R Q E D V S E I W F E Y E G T P L K W

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**EcoO109I (890)**

801 ATTATCCAATTGGTTTACTATTTGATCTTCTTGCATCAAGTTCAGCTCTTCTTGAACATCACAGTACATTTCAAGAGTTTTCCAGAAAAGGACCTTCT  
 80▶ H Y P I G L L F D L L A S S S A L P W N I T V H F K S F P E K D L L  
 901 ACACTGTCATCCAAGGATGCGGTTGAGGCTCACTTTATGTCGTGATGAAAGAAGCTGATGCTTAAAGCATAAAAGTCAAGTGCATCAACGAAATGCAG  
 113▶ H C P S K D A V E A H F M S C M K E A D A L K H K S Q V I N E M Q  
 1001 AAAAAAGACCACAAGCAGCTCTGGATGGGACTGCAAGAATGACAGATTTGACCGATTTTGGGCCATCAACCGAAACTCATGGAATATCCTCCAGAAGAAA  
 147▶ K K D H K Q L W M G L Q N D R F D Q F W A I N R K L M E Y P P E E

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**BsrBI (1144)**
**XmnI (1161)**
**PvuII (1192)**

1101 ATGGATTTGTTATATCCCTTTTAGAATATATCAGACCACGACGGAGCGGCTTTTATCCAGAAGCTGTTCCGGCCTGTGGCCGAGATGGACAGCTGCA  
 180▶ N G F R Y I P F R I Y Q T T T E R P F I Q K L F R P V A A D G Q L H

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**BglII (1209)**

1201 CACACTTGGAGATCTCCTCAGAGAAGTCTGTCTTCCGAGTCGCCCCGTAAGATGGAGAGAAGAGGACCCAGGTGATGATTCACGGGATAGAGCCAATG  
 213▶ T L G D L L R E V C P S A V A P E D G E K R S Q V M I H G I E P M  
 1301 CTGAAACCCCTCTGCAGTGGCTGAGCGAGCATCTGAGCTACCCAGATAACTTTCTTATATTAGCATTGTCCCCAGCCAACAGATTGAAAGAGTGTG  
 247▶ L E T P L Q W L S E H L S Y P D N F L H I S I V P Q P T D •

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**MscI (1424)**
**NheI (1418)**

1401 CCTCCTCGTAGATGGAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTT

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**HpaI (1556)**

1501 GTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTATTTTATGTTTCAGGTTACGGG

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**EcoRI (1652)**

1601 GGAGGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCT  
 1701 CTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTT

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**SspI (1891)**

1801 TAAGATATAGTGTATTTTCCAAGGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATGACTGACCTCCACATTCCCTTTTATGAAAAATATTACAG

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**SwaI (1905)**
**EcoO109I (1966)**

1901 AAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTG  
 2001 GACCTAGGGAACAAGGAACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAAT  
141▶ • N R T Y K L P I L E E I

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**SacI (2166)**
**BstXI (2195)**

2101 GGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCAC  
 128▶ 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 P S V V  
 2201 CTGATGGATCTGTCCACCTCATCAGAGTAGGGGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGG  
 94▶ 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 I A I A

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**StuI (2330)**

2301 CTTACGACAGACAGTACCCTGCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGCGCCCGCCGACATGGTGCTT  
 61▶ 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 V H H K

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**BspHI (2480)**
**BbsI (2476)**
**XmnI (2472)**

2401 GTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATAG  
 28▶ 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

2501 **AseI (2538)** **SacI (2595)**  
TGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCT

2601 **SpeI (2693)**  
CTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTACTAGT

2700  
CAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGACTGCCAAAACCGCATCA

2800 **SnaBI (2821)**  
TCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTC

2900 **NdeI (2926)**  
ATTGACGTCAATAGGGGCGTACTTGCCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAA

3000  
GTCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGGGGGGTCTTTGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATG

3100 **SdaI (3104)** **PacI (3112)** **BspLU11I (3122)**  
TAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCC

3198  
GCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCT

3298  
CGTGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTAT

3398 **ApaLI (3436)**  
CTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGT

3498  
CCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGTACAGAGTTCTTGAAGTG

3598  
GTGGCCTAACTACGGCTACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGC

3698  
AAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGG

3798 **EagI (3872)**  
**PacI (3852)** **SwaI (3861)** **NotI (3871)**  
GGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTT

3898  
TCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCC

3998  
CCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA