



100

**PvuI (7)**  
**SgfI (6)** **MfeI (82)**  
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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**Psp1406I (203)** **HindIII (245)**  
**PvuII (239)** **Bsu36I (291)**  
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGACAGTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC  
301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NgoMIV (441)**  
**NgoMI (441)**  
**NaeI (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCCTGACCCTGCTTGTCTCAACTCTACGCTTTGTTTCGTTT

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**BspHI (560)**  
**KasI (535)** **AgeI (552)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTCATGACCATCCTTTTCTTACTATGGTATTTTCATACTT  
601 TGGTTGCATGAAGGCTGCCCCATGAAAGAAGCAAACATCCGAGGACAAGGTGGCTTGGCCTACCCAGGTGTGCGGACCCATGGGACTCTGGAGAGCGTG  
13▶ G C M K A A P M K E A N I R G Q G G L A Y P G V R T H G T L E S V  
1▶ M T I L F L T M V I S Y F

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**Eco72I (754)**  
**BbrPI (754)**  
**BstBI (748)**  
**Bsp119I (748)**  
**AsuII (748)**  
701 AATGGGCCCAAGGCAAGTTCAGAGGCTTGACATCATTGGCTGACACTTTCGAACACGTGATAGAAGAGCTGTTGGATGAGGACCAGAAAGTTCCGCCCA  
47▶ N G P K A G S R G L T S L A D T F E H V I E E L L D E D Q K V R P

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**BsrGI (827)**  
801 ATGAAGAAAACAATAAGGACGCAGACTTGTACACGTCCAGGGTATGCTCAGTAGTCAAGTGCCTTTGGAGCCTCCTTCTTCTTTCTGCTGGAGGAATA  
80▶ N E E N N K D A D L Y T S R V M L S S Q V P L E P P L L F L L E E Y

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**KasI (941)**  
901 CAAAAATTACCTAGACGCTGCAACATGTCATGAGGGTCCGGCGCCACTCTGACCTGCCCGCCGAGGGGAGCTGAGCGTGTGTGACAGTATTAGTGAG  
113▶ K N Y L D A A N M S M R V R R H S D P A R R G E L S V C D S I S E  
1001 TGGGTAACGGCGGACAGACAAAAGACTGCAAGTGGACATGTGCGGGCGGACGGTACAGTCTTGAAGGTCCTGTATCAAAAGGCCAACTGAAGCAAT  
147▶ W V T A A D K K T A V D M S G G T V T V L E K V P V S K G Q L K Q

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**BsiWI (1199)**  
1101 ACTTCTACGAGACCAAGTGAATCCCATGGGTTACACAAAAGAAGGCTGCAGGGGCATAGACAAAAGGCACTTGAAGTCCAGTCCGCAACTACCCAGTC  
180▶ Y F Y E T K C N P M G Y T K E G C R G I D K R H W N S Q C R T T Q S

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**Bsp120I (1208)** **BsrGI (1276)**  
1201 GTACGTGCGGGCCCTTACCATGGATAGCAAAAAGAGAATTGGCTGGCGATTATAAGGATAGACACTTCTTGTGTATGTACATTGACCATTAAGGGGA  
213▶ Y V R A L T M D S K K R I G W R F I R I D T S C V C T L T I K R G

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**MscI (1324)**  
**BalI (1324)**  
**NheI (1318)**  
1301 AGATAGTGGATTTATGTTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGTGAAGAAAAATGCTTTATTT  
247▶ R •

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**HpaI (1456)** **MfeI (1467)**  
1401 GTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAACAAGTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGG

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**EcoRI (1552)**  
1501 GGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTCAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCT  
1601 CTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTT

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**SspI (1791)**  
1701 TAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTTCTTCTTCTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATGAAAATATTCAG

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**SwaI (1805)**  
1801 AAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTG  
1901 GACCTAGGGAACAAGGAACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGGGGGATGAGTTCCTCAAT  
141▶ • N R T Y K L P I L E I

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**SacI (2066)** **BstXI (2095)**  
2001 GGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGAGCTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCAC  
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  
2101 CTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGG  
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 (2230)**  
**Eco147I (2230)**  
2201 CTTGACACAGACAGTACCTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGCTT  
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

2301 GTTGTCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTTCTT**CATGATGGCCCTCCTATAG**  
 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 ←

2401 TGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCT  
 VspI (2438) AseI (2438) SacI (2495)

2501 CTGCTTATATAGACCTCCACCCTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGT  
 SpeI (2593)

2600 CAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCA  
 ←

2700 TCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCACTGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTC  
 SnaBI (2721) Eco105I (2721)

2800 ATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAA  
 NdeI (2826)

2900 GTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAAGTTATG  
 ←

3000 TAACGCCTGCAGGTTAA**TTAAGA**ACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCC  
 SdaI (3004) PacI (3012) ←

3098 GCCCCCTGACGAGCATCAGAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCCTGGAAGCTCCCT  
 ←

3198 CGTGGCTCTCCTGTTCCGACCTCGCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTAT  
 ←

3298 CTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGT  
 ApaLI (3336)

3398 CCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTG  
 ←

3498 GTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGC  
 ←

3598 AAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCTTTGATCTTTCTACGG  
 ←

3698 GGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCA**TGGCTAGTTAATTAACATTTAAATC** AGCGGCCGAATAAAATATCTTTATTT  
 EagI (3772) NotI (3771) PacI (3752) SmaI (3761)

3798 TCATTACATCTGTGTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCC  
 3898 CCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA