



100

**PvuI (7)**  
**SgfI (6)** **EcoNI (96)**  
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA  
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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**HindIII (245)**  
**Psp1406I (203)** **PvuII (239)** **EcoNI (287)**  
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC  
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NgoMI (441)**  
**NaeI (441)**  
401 GGGCCTTTGTCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGTCTTTGTTTCGTTT

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**NcoI (560)**  
**BstEII (555)**  
**KasI (535)** **AgeI (552)**  
501 TCTGTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTACCATGGCTCAGCACCTATGGATCTTGCCTCTTTCCT  
▶ ▶ 1▶ M A Q H H L W I L L L C L

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**PvuII (617)**  
601 GCAAACCTGGCCGGAAGCAGCTGGAAAAGACTCAGAAATCTTACAGTGAATGGGATTCTGGGAGAGTCACTCTTCCCTGTAATATCCAAGAACCA  
13▶ Q T W P E A A G K D S E I F T V N G I L G E S V T F P V N I Q E P  
701 CGCAAGTAAAAATCATTGCTTGGACTTCTAAAACATCTGTTGCTTATGTAACACCAGGAGACTCAGAAACAGCACCCGTAGTTACTGTGCCACAGAA  
47▶ R Q V K I I A W T S K T S V A Y V T P G D S E T A P V V T V T H R  
801 ATTATTATGAACGGATACATGCCTTAGGTCCGAAGTACAATCTGGTCTTAGCGATCTGAGGATGGAAGACGCAGGAGACTACAAAGCAGACATAAATAC  
80▶ N Y Y E R I H A L G P N Y N L V I S D L R M E D A G D Y K A D I N T

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**Eco47III (926)**  
**AfeI (926)**  
901 ACAGGCTGATCCCTACACCACCAAGCGCTACAACCTGCAATCTATCGTCGGCTTGGGAAACAAAAATTACACAGAGTTAATGGCATCTGTGAAC  
113▶ Q A D P Y T T T K R Y N L Q I Y R R L G K P K I T Q S L M A S V N  
1001 AGCACCTGTAATGTCACACTGACATGCTCTGTAGAGAAAAGAAAAGAAATGTGACATACAATTGGAGTCCCTGGGAGAAGAGGGTAATGTCCTTCAA  
147▶ S T C N V T L T C S V E K E E K N V T Y N W S P L G E E G N V L Q

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**BsrGI (1138)**  
**Eco72I (1134)**  
**BbrPI (1134)**  
1101 TCTCCAGACTCCTGAGGACCAAGAGCTGACTTACAGTGTACAGCCAGAACCTGTGACGAAACAATCTGACTCCATCTCTGCCCGGCGAGCTCTGTGC  
180▶ I F Q T P E D Q E L T Y T C T A Q N P V S N N S D S I S A R Q L C A  
1201 AGACATCGCAATGGGCTTCCGTAAGTACTCACCACACCGGGTGTGAGCGTGTGGCTATGTTCTTCTGCTTGTCTCATTCTGTCTTCAAGTGTCTTGTTC  
213▶ D I A M G F R T H H T G L L S V L A M F F L L V L I L S S V F L F  
1301 CGTTTGTCAAGAGAAGACAAGATGCTGCCTCAAAGAAAACATATACACATATATCATGGCTTCAAGGAACCCAGCCAGCAGAGTCCAGAATCTATG  
247▶ R L F F K R R Q D A A S K K T I Y T Y I M A S R N T Q P A E S R I Y

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**PstI (1408)**  
1401 ATGAAATCCTGCAGTCCAAGGTGCTTCCCTCCAAGGAAGGCCAGTGAACACAGTTTATTCGGAAGTGCAGTTTGTGATAAGATGGGAAAAGCCAGCAC  
280▶ D E I L Q S K V L P S K E E P V N T V Y S E V Q F A D K M G K A S T

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**EcoRI (1560)** **NheI (1573)** **MscI (1579)**  
1501 ACAGGACAGTAAACCTCCTGGGACTTCAAGCTATGAAATTGTGATCTAGGCTGCTGGGCTGAATTCTCCCTCTGCTAGCTGGCCAGACATGATAAGATAC  
313▶ Q D S K P P G T S S Y E I V I •  
1601 ATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCT

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**HpaI (1711)**  
1701 GCAATAACAAGTAAACAACAACAAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATG

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**EcoRI (1807)**  
1801 TGGTATGGAATTTAAAATACAGCATAGCAAACTTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAG  
▶ ▶  
1901 GGGCTGTTGCCAATGTGCATTAGCTGTTTGAGCCTCACCTTCTTCATGGAGTTAAGATATAGTGATTTTCCAAGGTTTGAAGTCTCTCATT

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**SspI (2046)** **SwaI (2060)**  
2001 CTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAAATTCAGAAAATATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTAT

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**EcoO109I (2121)**  
2101 TAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATGGACAGCAAGA  
2201 AAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCA  
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 V F C  
2301 GTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCC  
113▶ 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 R V A  
**SacI (2321)** **BstXI (2350)**

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**StuI (2485)**  
**Eco147I (2485)**  
2401 ACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGA  
79▶ 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 E I H V

2501 CAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTTGTCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCAC  
46 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 V E V  
BspHI (2635) VspI (2693)  
XmnI (2627) AseI (2693)  
2601 CAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATT  
13 L E L D Q Q S I N F T K M  
SacI (2750)  
2701 GTCAAAACAGCGTGGATGGCGTCTCCAGC T TATCTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCACCCTACACGCCTACCGCCATTGTC  
SpeI (2848)  
2801 GTC AATGGGGCGGAGTTGTTACGACATTTTGGAAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCAATTGACGTCAATGGGGTGGAGACTTGAAAT  
SnaBI (2976)  
Eco105I (2976)  
2900 CCCCCTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAG  
NdeI (3081)  
3000 GAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATG  
3100 TACTGCCAAGTGGGACAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTC  
PstI (3260)  
SdaI (3259) PacI (3267) BspLU11I (3277)  
3200 AATGGGCGGGGGTCTGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACCGCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAG  
3298 CAAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGT  
3398 GCGGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTC  
ApaLI (3591)  
3498 CGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCAC  
3598 GAACCCCGTTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGTAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTG  
3698 GTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTG  
3798 CGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTGTGTTGCAAGCAG  
3898 CAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGG  
EagI (4027)  
PacI (4007) SwaI (4016) NotI (4026)  
3998 TCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTACATTACATCTGTGTGTTGTTTTTGTGTGAATCGTAACTAACA  
4098 TACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA