



100

**PvuI (7)**  
**SgfI (6)** MfeI (82) EcoNI (96)  
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

**HindIII (245)** **Bsu36I (291)**  
**Psp1406I (203)** PvuII (239) EcoNI (287)  
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGGCC  
301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NcoMIV (441)  
NaeI (441)  
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTCTTTGTTTCGTTT

**NcoI (560)**  
**BstEII (555)**  
**KasI (535)** **AgeI (552)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTACCATGGACCTCTCCACCAGTTTCTCTGCTGCTGATCAC  
1 M G P L H Q F L L L I T  
NcoMIV (643)  
NaeI (643)  
601 AGCCCTGTCCCAAGCCCTCAACACCACGGTGTGCAGGGCATGGCCGGCCAGTCTTGAGGGTGTGATGTAAGTCTTATGACGCCTTGAAGCACTGGGGGAGA  
13 A L S Q A L N T T V L Q G M A G Q S L R V S C T Y D A L K H W G R

**StuI (704)** **PvuII (718)** **Bsp120I (732)** **DraIII (758)**  
701 CGCAAGGCCTGGTGTCCGAGCTGGGTGAGGAGGGCCCATGCCAGCGTGTGGTGAGCACACACGGTGTGGCTGTGGCTTCTCGAAGAAGCGGAATG  
47 R K A W C R Q L G E E G P C Q R V V S T H G V W L L A F L K K R N  
801 GGAGCACAGTCATCGCAGATGACACCCTTGTGGAACCGTCACCATCCTCTGAAGAACCTCCAAGCCGGTGACGCGGGCCTTACCAGTGTGAGAGTCT  
80 G S T V I A D D T L A G T V T I T L K N L Q A G D A G L Y Q C Q S L

**ScaI (930)** **XbaI (957)** **BglII (978)**  
901 CCGAGGCCGAGAGGCTGAGTTCCTGCAGAAAGTACTGGTGAGGCTGTGGAGGACCTCTAGATGACCAAGATGCTGGAGATCTCTGGTCCCGGAGGAG  
113 R G R E A E V L Q K V L V E V L E D P L D D Q D A G D L W V P E E  
1001 TCATCGAGTTTCGAGGGTGCCTCAAGTGAACACAGCACCTCCAGGAATCAAGAGACCTCTTCCACCCACCTCCATTCTCTCTCTGGCCTGCGTTC  
147 S S S F E G A Q V E H S T S R N Q E T S F P P T S I L L L L A C V  
1101 TCCTGAGCAAGTTTCTTGCAGCCAGCATCTCTGGGCTGTGGCCAGGGCAGGAGCAAGCCGGGAACCTGTGGTGTGAGGGCTGGACTGTGGCCAAGA  
180 L L S K F L A A S I L W A V A R G R Q K P G T P V V R G L D C G Q D

EcoRI (1248)  
1201 TGCTGGGACCAACTTCAGATCCCTACTGGACCCGAGGTACGTGAGAGAATTCTGAGTGGGAGGAGAAGTACAGCTTAAGTCCAGCCAGGAGTCAATCC  
213 A G H Q L Q I L T G P G G T •

**NheI (1305)**  
1301 AGCCTGTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGA

**HpaI (1443)** MfeI (1454)  
1401 TGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTAAACAACAACATTGCATTCTTTATGTTTCAGGTTTCAGGGGAGGTGTGGAG

EcoRI (1539)  
1501 GTTTTTAAAGCAAGTAAACCTCTACAAATGGTATGGAATCTAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTGAACTCT  
1601 TTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGT

**SspI (1778)** **SwaI (1792)**  
1701 ATTTTCCCAAGGTTTGAAGTACTGCTCTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATAGTAAATATTCAGAAATAATTTAAAT  
1801 ACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACA  
1901 AAGGAACCTTTAATGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACC  
141 • N R T Y K L P I L E E I T T K V

**SacI (2053)**  
2001 AGCTTGCCATTCTCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGT  
123 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 R I S R D  
2101 CCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCCAGCACAGAC  
90 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 E A C V

**StuI (2217)**  
2201 AGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCGCCGACATGGTCTTGTGCTCATAG  
57 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 N D E Y

**BspHI (2367)**  
**XmnI (2359)**  
2301 AGCATGGTGTCTTCTCAGTGGCAGCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCTATAGTGAAGTCTATTAT  
23 L M T I K E T A V E V L E L D Q Q S I N F T K M

**AseI (2425)** **SacI (2482)**  
2401 ACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGA

2501 CCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCC  
2600 CATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCAGCCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGC  
**SnaBI (2708)**  
2700 GATGACTAATACGTAGATGTAAGTACTGCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATA  
**NdeI (2813)**  
2800 GGGGGCGTACTTGGCATATGATACACTTGTACTGCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAAGTCCCTATTGGCG  
**SdaI (2991)**  
2900 TTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCCTGCAG  
**PacI (2999) BspLU11I (3009)**  
2999 GTTAA TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTCCATAGGCTCCGCCCCCTGACGA  
3098 GCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCCT  
3198 GTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGT  
**ApaLI (3323)**  
3298 AGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAG  
3398 ACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTAC  
3498 GGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCG  
3598 CTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCA  
**EagI (3759)**  
**PacI (3739) SmaI (3748) NotI (3758)**  
3698 GTGGAACGAAAACACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTCATTACATCTGT  
3798 GTGTTGGTTTTTTGTGTGAATCGTAACATAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGC  
3898 AGGTGCCAGAACATTTCTCTATCGAA