



**PvuI (7)**  
**SgfI (6)** MfeI (82) EcoNI (96)  
1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

---

**HindIII (245)** Bsu36I (291)  
**Psp1406I (203)** **PvuII (239)** EcoNI (287)  
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCAGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC  
301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

---

**NgoMIV (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

---

**NcoI (560)**  
**BstEII (555)**  
**AgeI (552)** **SacII (593)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCCCTACCTGAGATCACCGGTCACCATGGACCAGCACACACTTGATGTGGAGGATACCCGGGA  
601 TGCCAGACATCCAGCAGGTACTTCGTGCCCTCGAGTGCAGGCTCCTCAGAGATACCGGGCTCCTCGCGGACGCTGCCCTCCTCAGATACGTGGCC  
13▶ A R H P A G T S C P S D A A L L R D T G L L A D A L L S D T V R

---

**NruI (756)**  
701 CCCACAAATGCCGCGCTCCACGGATGCTGCCTACCCTGCGGTTAATGTTCCGGATCGCGAGCCGCGTGGCCGCTGCACTGAAGTCTGTTCCCGCC  
47▶ P T N A A L P T D A A Y P A V N V R D R E A A W P P A L N F C S R

---

**Eco47III (888)**  
801 ACCCAAAGCTCTATGGCCTAGTCGCTTTGGTTTTGCTGCTTCTGATCGCCGCTGTGTTCTATCTTACCCCGCACCAGCCTCGGCCAGCGCTACAAT  
80▶ H P K L Y G L V A L V L L L L I A A C V P I F T R T E P R P A L T I

---

**Acc65I (919)** **Tth111I (940)**  
901 CACCACCTCGCCCAACCTGGGTACCCGAGAGAATAATGCAGACCAGGTACCCCTGTTCCACATTGGCTGCCCAACACTACACAACAGGGCTCTCCT  
113▶ T T S P N L G T R E N N A D Q V T P V S H I G C P N T T Q Q G S P

---

**BstXI (1007)** **XcmI (1065)**  
1001 GTGTTCCGCAAGCTACTGGCTAAAAACCAAGCATCGTTGTGCAATACAACCTGAACTGGCACAGCCAAAGATGGAGCTGGAGCTCATACTATCTCAAG  
147▶ V F A K L L A K N Q A S L C N T T L N W H S Q D G A G S S Y L S Q

---

**BbsI (1114)** **XmaI (1144)** **SnaBI (1156)**  
1101 GTCTGAGGTACGAAGAAGACAAAAAGGAGTTGGTGGTAGACAGTCCCGGGCTCTACTAGTATTTTTGAACTGAAGCTCAGTCCAACATTACAAAACAC  
180▶ G L R Y E E D K K E L V V D S P G L Y Y V F L E L K L S P T F T N T

---

**DraIII (1204)** **Bsu36I (1246)**  
1201 AGGCCACAAGGTGCAGGGCTGGTCTCTTGTGTTTGAAGCAAAAGCCTCAGGTAGATGACTTTGACAACTTGGCCCTGACAGTGAAGTGTTCCTTGC  
213▶ G H K V Q G W V S L V L Q A K P Q V D D F D N L A L T V E L F P C

---

**NcoI (1301)** **MscI (1356)**  
1301 TCCATGGAGAACAAGTTAGTGGACGTTCTGGAGTCAACTGTTGCTCCTGAAGGCTGGCCACCGCCTCAGTGTGGTCTGAGGGCTTATCTGCATGGAG  
247▶ S M E N K L V D R S W S Q L L L L K A G H R L S V G L R A Y L H G

---

**NsiI (1406)** **NcoI (1480)**  
1401 CCCAGGATGCATACAGACTGGGAGCTGTCTTATCCCAACACCAGCTTTGGACTTTTCTGTGAAACCCGACAACCCATGGGAATGAGAATATC  
280▶ A Q D A Y R D W E L S Y P N T T S F G L F L V K P D N P W E •

---

**MscI (1506)** **NheI (1500)**  
1501 GCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACAGTAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTA

---

**HpaI (1638)** **MfeI (1649)**  
1601 TTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGTTTT

---

**EcoRI (1734)**  
1701 TTAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCT  
1801 GAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGATTTT

---

**SapI (1916)** **SspI (1973)** **SwaI (1987)**  
1901 CCCAAGTTTGAAGTCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATC

---

**EcoO109I (2048)**  
2001 ATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTGTAGTGTGGACTTAGGGAACAAGGA  
2101 ACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTT  
141▶ • N R T Y K L P I L E E I T T K V L K

---

**BstXI (2277)**  
2201 GCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACC  
122▶ 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 V  
2301 TCATCAGATAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGCCAAATGGCAATGGCTTCAGCACAGACAGTGA  
88▶ 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 T V

---

**StuI (2412)**  
2401 CCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGCTCCTCATAGAGCAT  
55▶ 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

BbsI (2558)  
XmnI (2554)  
2501 GGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGGCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTAT  
22 T I K E T A V E V L E L D Q Q S I N F T K M  
AseI (2620)  
2601 GCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTGCTTATATAGACCTCC  
SpeI (2775)  
2701 CACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGA  
2801 CGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCCAAACCGCATCATCATGGTAATAGCGATGAC  
SnaBI (2903)  
2901 TAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGC  
NdeI (3008)  
3001 GTACTTGGCATATGATACACTTGTACTGCTCAAGTGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCTATTGGCGTTACTA  
PacI (3194)  
PstI (3187)  
SdaI (3186)  
3101 TGGGAACATACGTCATTATTGACGTCAATGGGGGGGGTCTGGGGCGTCCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCGCGAGGTTAATT  
BspLU11I (3204)  
3201 AAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTTCATAGGCTCCGCCCCCTGACGAGCATCACA  
3301 AAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCGTGAAGCTCCCTCGTGCCTCTCCTGTTCCGAC  
3401 CCTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCCGGTGTAGGTCGTT  
ApaLI (3518)  
3501 CGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACAGACT  
3601 TATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACAC  
3701 TAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTTTGATCCGGCAAAACAAACCCGCTGGTAGC  
3801 GGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACG  
EagI (3954)  
PacI (3934) SwaI (3943) NotI (3953)  
3901 AAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGT  
4001 TTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCGAGTGAAGTGCAGGTGCCA  
4101 GAACATTTCTCTATCGAA