



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

**Psp1406I (203)** **HindIII (245)** **Bsu36I (291)**  
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACACGGCCCGCCCTACCTGAGGCC  
301 GCCATCCACGCGGTTGAGTGCCTGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTCTTTGTTTCGTTT

**SphI (560)**  
**AgeI (552)** **SacII (568)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTGAGTATGCGCCGCGGTGTGGCTCCTCTTGGCCGCGCAGCT  
1▶ M R P R L W L L L A A Q L

**NcoI (609)** **BstXI (659)**  
601 GACAGTTCCTCATGGCAACTCAGTCTCCAGCAGACCCCTGCATACATAAAGGTGCAAAACCAAGATGGTGTGCTGTCTGCGAGGCTAAAACTCC  
13▶ T V L H G N S V L Q Q T P A Y I K V Q T N K M V M L S C E A K I S

**FspI (710)**  
701 CTCAGTAACATGCGCATCTACTGGCTGAGACAGCGCCAGGCACCGAGCAGTGACAGTCAACACGAGTTCTGGCCTCTGGGATTCCGAAAAGGGACTA  
47▶ L S N M R I Y W L R Q R Q A P S S D S H H E F L A L W D S A K G T

**BbsI (886)**  
801 TCCACGGTGAAGAGGTGGAACAGGAGAAGATAGCTGTGTTTCCGGATGCAAGCCGGTTCATTCTCAATCTCACAAGCGTGAAGCCGGAAGACAGTGGCAT  
80▶ I H G E E V E Q E K I A V F R D A S R F I L N L T S V K P E D S G I  
901 CTACTTCTGCATGATCGTCGGGAGCCCCGAGCTGACCTTCGGGAAGGAACTCAGTGTGTTGATTTCTTCCACCCTGCCCAGCCCAACCAAG  
113▶ Y F C M I V G S P E L T F G K G T Q L S V V D F L P T T A Q P T K

**Bsp120I (1053)** **EcoO109I (1052)**  
1001 AAGTCCACCTCAAGAAGAGAGTGTGCCGTTACCCAGGCCAGAGACCCAGAAAGGGCCACTTTGTAGCCCCATCACCTTGGCCTGCTGGTGGCTGGCG  
147▶ K S T L K K R V C R L P R P E T Q K G P L C S P I T L G L L V A G

**MscI (1127)** **NgoMIV (1145)** **BspHI (1172)**  
1101 TCCTGGTCTGCTGGTTTCCCTGGGAGTGGCCATCCACCTGTGCTGCCGGGAGGAGAGCCCGCTTCTGTTTCATGAAACAATTTTACAATGAGCAGA  
180▶ V L V L L V S L G V A I H L C C R R R R A R L R F M K Q F Y K •

**MscI (1275)**  
1201 GAATACGGTTTTGGTGTCTGCTACAAAAGACATCGGTGAGTAAACGAGCAGATGTGGAAAAATGAGAGCTAGCTGGCCAGACATGATAAGATACATTG  
1301 ATGAGTTTGGACAAACCACAAGTGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAA

**HpaI (1407)** **MfeI (1418)**  
1401 TAAACAAGTTAACAACAACAATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGT

**EcoRI (1503)**  
1501 ATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGC

**SapI (1685)**  
1601 TGTGCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTCCCAAGTTTGAAGTACCTTCTTCTTT

**SspI (1742)** **SwaI (1756)**  
1701 ATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGG

**EcoO109I (1817)**  
1801 CAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCTTAAATAGAAATGGACAGCAAGAAAGC  
1901 GAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCA  
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 D

**SacI (2017)** **BstXI (2046)**  
2001 GGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAA  
111▶ 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 V I

**StuI (2181)**  
2101 TGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAAATGGCAATGGCTTCCAGCAGACAGTGCCTGCAATGAGGCTCAATGTGGACAGC  
78▶ 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 A  
2201 AGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCGACATGGTCTTGTGCTCATAGAGCATGGTGTATCTTCTCAGTGGCGACCTCCACAGC  
45▶ 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 L

**BbsI (2327)** **XmnI (2323)** **AseI (2389)**  
2301 TCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGTGCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCA  
11▶ E L D Q Q S I N F T K M

**SacI (2446)**  
2401 AAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCA

2501 ATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCG  
SpeI (2544)  


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 2601 TGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAG  
SnaBI (2672)  


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 2701 TCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGCCATATGATACACTTGATGTACTG  
NdeI (2777)  


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 2801 CCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGG  


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PacI (2963)  
PstI (2956)  
SdaI (2955)  
BspLU11I (2973)  
 2901 GCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAAGAACATGTGAGCAAAAGGCCAGCAAAAGG  


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 3001 CCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAA  


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 3101 CCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTT  


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ApaLI (3287)  
 3201 CTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCC  


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 3301 CCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAG  


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 3401 GATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTG  


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 3501 CTGAAGCCAGTTACCTTCGGA AAAAGAGTTGGTAGCTTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTA  


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 3601 CGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGC  


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EagI (3723)  
PacI (3703) SwaI (3712) NotI (3722)  
 3701 TAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTC  


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 3801 TCCATCAAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA