



100

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

**Psp1406I (203)** **HindIII (245)** **Bsu36I (291)**  
**PvuII (239)** EcoNI (287)  
 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC  
 301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

**NgoMI (441)**  
**NaeI (441)**  
 401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTCTTTGTTTCGTTT

**KasI (535)** **AgeI (552)** **BspLU11I (560)**  
 501 TCTGTTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCAACATGTGCTCCAGAGGTTGGGATTTCGTGTCTGGCTCTGGA  
 1 M C S R G W D S C L A L E  
**PshAI (660)**

**BstEII (627)** **NdeI (655)**  
 601 ATTGCTACTGCTGCTCTGTCACTCCTGGTGACCAGCATTCAAGGTCACCTTGGTACATATGACCGTGGTCTCCGGCAGCAACGTGACTCTGAACATCTCT  
 13 L L L L P L S L L V T S I Q G H L V H M T V V S G S N V T L N I S  
**ScaI (785)**

**BsrGI (842)** **BspHI (884)**  
 701 GAGAGCCTGCCTGAGAACTACAAACAACAACTGTTTATACTTTGACCAGAAGATTGTAGAATGGGATTCCAGAAAATCTAAGTACTTTGAATCCA  
 47 E S L P E N Y K Q L T W F Y T F D Q K I V E W D S R K S K Y F E S  
 801 AATTTAAAGCGAGGTCAGACTTGTATCCTCAGAGTGGCGCACTGTACATCTCTAAGTCCAGAAAGAGGACAACAGCACCTATATCATGAGGGTGTGAA  
 80 K F K G R V R L D P Q S G A L Y I S K V Q K E D N S T Y I M R V L K  
 901 AAAGACTGGGAATGAGCAAGAATGGAAGATCAAGCTGCAAGTGCCTGACCCTGTACCCAAGCCTGTATCAAAATGAGAAGATAGAAGACATGGATGAC  
 113 K T G N E Q E W K I K L Q V L D P V P K P V I K I E K I E D M D D

**EcoO109I (1069)**  
 1001 AACTGTTATCTGAAACTGTCATGTGTGATACTGGCGAGTCTGTAAACTACACCTGGTATGGGGACAAAAGGCCCTTCCCAAAGGAGCTCCAGAACAGTG  
 147 N C Y L K L S C V I P G E S V N Y T W Y G D K R P F P K E L Q N S  
 1101 TGCTTGAACACCCTTATGCCACATAATTACTCCAGGTGTTATACTTGCAGTCAAGTCAATCTGTGAGCAGCAAGAATGGCAGGCTGCCTCAGTCC  
 180 V L E T T L M P H N Y S R C Y T C Q V S N S V S S K N G T V C L S P  
 1201 ACCCTGTACCCTGGCCCGGCTCTTGGAGTAGAATGGATTGCAAGTGGCTAGTGGTACCGGTGCCACCATTCTTGGCTGTACTTACCTGAGATGAG  
 213 P C T L A R S F G V E W I A S W L V V T V P T I L G L L L T •

**MscI (1336)**  
**NheI (1330)**  
 1301 CTCTTTAACTCAAGCGAAACTCAAGGCCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAAACCACAAC TAGAATGCAGTGAAAAA

**HpaI (1468)** MfeI (1479)  
 1401 AATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTTATGTT

**EcoRI (1564)**  
 1501 TCAGGTTTCAGGGGAGGTGTGGGAGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAAACTTTAACCTC  
 1601 CAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTC  
 1701 TTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTGTCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATG

**SspI (1803)** **SwaI (1817)** **EcoO109I (1878)**  
 1801 TAAAATATTGAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCCA  
 1901 GTTTAGTAGTTGGACTTAGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTTGAGGGGAT  
 141 • N R T Y K L P I  
 2001 GAGTTCCTCAATGGTGGTTTTGACCAGCTTCCATTCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAAGATGAGCTCTCTGCACATGCCACAG  
 132 L E E I 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  
**BstXI (2107)**

**StuI (2242)** **Eco147I (2242)**  
 2101 GGGCTGACCACCTGATGGATGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACC  
 98 P S V V 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  
 2201 CAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCC  
 65 I A I A 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  
**BspHI (2392)**

**XmnI (2384)**  
 2301 GACATGGTGTCTTTGTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTTCTTCATGATG  
 32 V H H K 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  
**VspI (2450)**  
**AseI (2450)**  
 2401 GCCCTCTATAGTGCATGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTC

2501 ACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTT

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2601 **SpeI (2605)**  
GATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCC

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2700 **SnaBI (2733)**  
**Eco105I (2733)**  
AAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGG

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2800 **NdeI (2838)**  
CCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCCTAAATACTCCACCCATTGA

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2900 CGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTA

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3000 **PstI (3017)**  
**SdaI (3016)****PacI (3024)** **BspLU11I (3034)**  
CCGTAAGTTATGTAACGCC T G C A G G T T A A T T A A G A A C A T G T G A G C A A A A G G C C A G C A A A A G G C C A G G A A C C G T A A A A A G G C C G G T T G C T G G C G T T T T

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3098 TCCATAGGCTCCGCCCCCTGACGAGCATCAGAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCC

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3198 TGGAAGCTCCCTCGTGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGTTTCTCATAGCTCA

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3298 **ApaLI (3348)**  
CGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCCTGCGCCTTATCCGGTAACT

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3398 ATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGA

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3498 GTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGC

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3598 TCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGA

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3698 **EagI (3784)**  
**PacI (3764)** **SwaI (3773)** **NotI (3783)**  
TCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGAATAAA

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3798 ATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAA

3898 AATAGGCTGTCCCAGTGCAGGTGCCAGAACATTTCTCTATCGAA