



**Sgfl (11) EcoRI (16)**  
1 GGATCTGCGATCGCTGAATTC**TGGGGACTTTCCACTGGGGACTTTCCACTGGGGACTTTCCACTGGGGACTTTCCACTCCTGCAGC**  
101 AGTGGATATTTCCAGAAA**ACTTTTTGGATGCAGTTGGGGATTCTCTTTACTGGATGTGGACAATATCTCTATTATTACAGGAAGCAATCCCTCCT**

**HindIII (256) NcoI (283)**  
201 A**TAAAAGGGCCTCAGCAGAAGTAGTGTTCAGCTGTTCTTGGCTGACTTCACATCAAAGCTTCTATACTGACCTGAGACAGAGC**CATGGCTTCAAGGTGT  
301 AC**GACCCCGAGCAACGCAAACGCATGATCACTGGGCCTCAGTGGTGGGCTCGCTGCAAGCAAATGAACGTGCTGGACTCCTTCATCAACTACTATGATTC**  
6 Y D P E Q R K R M I T G P Q W W A R C K Q M N V L D S F I N Y Y D S  
401 CGAGAAGCACGCCGAGAACGCCGTGATTTTTCTGCATGGTAACCTGCCTCCAGCTACCTGTGGAGGCACGTCTGCCTCACATCGAGCCCGTGGCTAGA  
39 E K H A E N A V I F L H G N A A S S Y L W R H V V P H I E P V A R  
501 TGCATCATCCCTGATCTGATCGGAATGGTAAGTCCGGCAAGAGCGGAATGGCTCATATCGCTCCTGGATCACTACAAGTACCTCACCGCTTGGTTCG  
73 C I I P D L I G M G K S G K S G N G S Y R L L D H Y K Y L T A W F  
601 AGCTGCTGAACCTTCAAAGAAAATCATCTTTGTGGCCACGACTGGGGGCTTGTCTGGCCTTCTACTACTCTACGAGCACCAAGACAAGTCAAGGC  
106 E L L N L P K K I I F V G H D W G A C L A F H Y S Y E H Q D K I K A

**EcoRV (770)**  
701 CATCGTCCATGCTGAGAGTGTCTGGACGTGATCGAGTCTGGGACGAGTGGCCTGACATCGAGGAGGATATCGCCCTGATCAAGAGCGAAGAGGGCGAG  
139 I V H A E S V V D V I E S W D E W P D I E E D I A L I K S E E G E  
801 AAAATGGTCTTGAGAATAACTTCTTCGTCGAGACCATGCTCCAAGCAAGATCATGCGGAACTGGAGCCTGAGGAGTTCGCTGCCTACCTGGAGCCAT  
173 K M V L E N N F F V E T M L P S K I M R K L E P E E F A A Y L E P  
901 TCAAGGAGAAGGGCGAGGTTAGACGGCTACCTCTCTGGCCTCGCGAGATCCCTCTCGTTAAGGGAGGCAAGCCCGACGTCTGCCAGATTGTCCGCAA  
206 F K E K G E V R R P T L S W P R E I P L V K G G K P D V V Q I V R N  
1001 CTACAACGCTACCTTCGGGCCAGCGACGATCTGCCTAAGATGTTTCATCGAGTCCGACCTGGGTTCTTTTCCAACGCTATTGTGAGGGAGCTAAGAAG  
239 Y N A Y L R A S D D L P K M F I E S D P G F F S N A I V E G A K K  
1101 TTCCTAACACCGAGTTCGTGAAGGTGAAGGGCCTCCACTTCAGCCAGGAGGACGCTCCAGATGAAATGGTAAGTACATCAAGAGCTTCGTGGAGCGCG  
273 F P N T E F V K V K G L H F S Q E D A P D E M G K Y I K S F V E R  
1201 TGCTGAAGAACGAGCAGTA**TTCT**AGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACA**ACT**AGAATGCAGTGAAAAAATGCTTTA  
306 V L K N E Q •

**HpaI (1362)**  
1301 TTTGTAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAA**CAAGTTAA**CAACA**CAATTGC**ATT**CATTTT**ATGTTTCAGGTTCA

**EcoRI (1456)**  
1401 GGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAA**AACTCT**ACAAATGTGGTATG**GAATTC**TAA**AAATAC**AGCATAGCAA**AACTTTA**ACCTC**CAAA**TCAAG  
1501 CCTCTACTTGAATC**TTTTCT**GAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGAGCCTCAC**TTCTTT**CATGGA  
1601 GTTTAAGATATAGTGATTTTCCAAGGTTTGA**ACTAGCTT**CATTCTTTATGTTTAAATG**CACTGACCT**CCACATTCC**TTTTAG**TAA**ATATT**  
1701 CAGAAATA**ATTTAA**TACATCATTGCAATGAA**ATAAATG**TTTTTATTAGGCAGAA**TCCAGATG**CTCAAGGCCTTCATAAT**ATCCCC**CAGTTTAGT**AG**  
1801 TTGGACTTAGGAA**CAAAGGAAC**CTTTAATAGAA**ATTGG**ACAGCAAGAAAGCGAGCTTCTAG**CTCAGGTTA**AGCTC**CAGGCTT**CCTTGT**CATGCAC**CAA  
1901 GTTCTTGGCCTTCTGGAACCTCA**ACATCAGCT**GT**CACAGT**GAATCC**AGTCTTT**CATA**AAAAAGG**CAGGTTTCTGGGAGCAGAA**AGTTCC**AGAAAGGCAG  
189 T R P G E P V E V D A T V T F G L R E Y F P L N R P A S T E L F A P  
2001 GAACTCCAGCC**TTTTCAGCAGCTT**CA**ACTCCAGG**CAGAA**CAACAGCAGAT**CC**CAGACC**TTTCCCTGGTGGT**CAGGGCT**CA**CTCCA**CAGTTGCCAGAAA  
156 V G A R E A A E V G P L V V A S G L G K G Q H D P S V G V T A L F

**SacI (2180)**  
2101 CCAAGCTGGCTCTTTTGGCCTGTGTGGTGC**CAGCAG**ACTTCCATTTGTTGTTGTGCTGC**CAGCCTGCTT**CCAGAGAGCTCAGCCATTCTTGGTCCAATT  
123 W A P E K P R H P A L L G E M Q Q Q A A L R S G S L E A M R P G I  
2201 TCAGCA**AAAAACAG**CACCAGCTTCA**ACAGACT**CAGGTGTG**TCCAAACT**GCAACAGCAGCTCCATCATCTG**CAACCAAACT**TTTCCAATG**TCCAGT**CCCA  
89 E A F V A G A E V S E P T T W V A V A A G D D A V W V K G I D L G V  
2301 CTCTGGT**GAGGAAG**ATTCTTGCAGT**TTGT**CACCCTCTCA**ATGTGC**CTGT**CAGG**TCA**ACTGTG**CCTTGT**G**CAGGGTAGTCTG**CAAAAGCAGC**AGC  
56 R T L F L E Q L E T V R E I H R D P D V T H R T A P Y D A F A A A  
2401 CAGTGTCTCACAGCTCTT**GAAACAT**CATCTCTG**TTGCCAGCCT**CACTGTGGGTTT**G**ACTCAGT**CATGGT**GGCCCTCTATAGT**GAGTCG**TATTATAC  
23 L T R V A R P V D D R T A L R V T P K Y E T M

**Asel (2525)**  
2501 TATGCCGATATACTATGCCGATGATTA**ATTGTCA**ACTACTGTTTGTAGGCGCCGGT**CACAGCTT**GGATCTG**TAA**CGGC**GAGAA**CAGAAA**ACGAA**ACAAA  
2601 GACGTAGAGTTGAGCAAGCAGGGT**CAGGCAA**AGCGTGGAGAGCCGGCTGAGTCTAGGTAGGCT**CCAAGGG**AGCGCCG**ACAAAGGCC**GGTCTCGACCTG  
2701 AGCTTTAA**ACTTAC**CTAGACGGCGGACGCAGTT**CAGGAGG**CACCACAGGCGGGAGGCGGCAGAA**CGCGACT**CA**ACCGG**CGTGGATGGCGGCCTCAGGTAG

**HindIII (2838) Psp1406I (2881)**  
2801 GCGGGCGGGCGCGTGAAGGAGAGATGCGAGCC**CTCGAAGCTT**CAGCTGTGTTCTGGCGG**CAACCCG**TTGCGAAA**AGAACGTT**CACGGCGACTACTGC

Agel (2994)

2901 ACTTATATACGGTTCTCCCCACCCTCGGGAAAAAGGCGGAGCCAGTACACGACATCACTTTCCAGTTTACCCCGGCCACCTTCTCTAGGCACCGGTT

SpeI (3063)

BspLU11I (3091)

3001 CAATTGCCGACCCTCCCCCAACTTCTCGGGGACTGTGGGCGATGTGCGCTCTGCCACTGACTAGTGGGCCCTGCAGGTTAATTAAGAACATGTGAGC

3101 AAAAGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAGAAAAATCGACGCTCA

3201 AGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCCGACCCTGCCGTTACCG

3301 GATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCAAGCTGGG

3401 CTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCA

3501 GCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTAT

3601 TTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTTGT

3701 TTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACTCACGTTAA

NotI (3841)

3801 GGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATC

3901 GTAAC TAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGAAGTGCAGGTGCCAGAACATTTCTCTAT

4001 CGAA