



**Sgfl (11)** **EcoRI (16)**  
1 GGATCTGCGATCGCTGAATTC**TGGGGACTTTCCACTGGGGACTTTCCACTGGGGACTTTCCACTGGGGACTTTCCACTCCTGCAGC**  
101 AGTGGATATTTCCAGAAAAC**TTTTTGGATGCAGTTGGGGATTCTCTTTACTGGATGTGGACAATATCTCTATTATTACAGGAAGCAATCCCTCCT**

**HindIII (256)** **NcoI (283)**  
201 A**TA**AAAAGGGCCTCAGCAGAA**GTAGTGTTCAGCTGTTCTTGGCTGACTTCACATCAAAGCTTCTATACTGACCTGAGACAGAGCCATGGAAATCAAGGTGC**  
1 M E I K V **BglIII (398)**

301 TGT**TTGCCTCATCTGTATTGCTGTTGCTGAGGCAAACCCACTGAAATCAATGAAGACCTCAATATAGCTGTGTGGCTCCA**ACTTTGCCACCACAG**A**  
6 L F A L I C I A V A E A K P T E I N E D L N I A A V A S N F A T T D  
401 TCTT**GAGACTGACCTGTTCA**CAACTGGGAGACCATGAATGTGATTAGCACTGACACAGAGCAGGTGAACACAGATGCTGACAGGGGCAAGCTGCCTGGC  
39 L E T D L F T N W E T M N V I S T D T E Q V N T D A D R G K L P G  
501 AAAAA**ACTCCCCCAGATGTCCTGAGGGAGCTGGAGGCCAATGCCAGAAGGGCTGTTGCACAAGAGGCTGCCTCATT**GGCTCTCCACATTAAGTGC**A**  
73 K K L P P D V L R E L E A N A R R A G C T R G C L I C L S H I K C **EcoRV (695)**

601 CC**CTAAGATGAAGAAATTTATCC**TGGCAGGTGCCACACTTATGAAGGTGAAAAGGAGTCTGCTCAGGGAGGGATTGGAGAGGCAATTTGTTGATATCC**C**  
106 T P K M K K F I P G R C H T Y E G E K E S A Q G G I G E A I V D I P  
701 AGAGAT**CTGGCTTCAAGGATAAAGGAGCCACTGGACCA**GTATTATTGCTCAAGTGGACCTCTGTGCTGATTGACCACTGGCTGTCTGAAGGGCCTTGC**C**  
139 E I P G F K D K E P L D Q F I A Q V D L C A D C T T G C L K G L A  
801 AATGTCCAGTGTCTGACCTCTGAAGAAGTGGCTTCC**CCAGAGGTGTACCACTTTTGC**CAGCAAGATT**CAGGGTAGGGTGGCAAAATCAAGGGTCTGG**  
173 N V Q C S D L L K K W L P Q R C T T F A S K I Q G R V D K I K G L

**NheI (917)**  
901 CTGGGGACAGATGATAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAACCACA**ACTAGAATGCAGTGAAAAAATGCTTTATTTGT**  
206 A G D R •

**HpaI (1057)**  
1001 GAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAGTAA**CAACAACAATTGCATTCATTTATGTTTCAGGTT**CAGGGGG

**EcoRI (1151)**  
1101 AGGTGTGGGAGGTTTTTAAAGCAAGTAA**ACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAA**AACTTTAACCTCCAATCAAGCCTCT  
1201 ACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTG**CAGCCTCAC**TTCTTT**CATGGAGTTA**  
1301 AGATATAGTGTATTTTCCAAGGTTTGA**ACTAGCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCC**CACATTCCCTTTT**AGTAAAATATT**CAGAA  
1401 ATAATTTAAATACATCATTGCAATGAAATAAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTT**CATAATATCCCCAGTT**AGTAGTTGGA  
1501 CTTAGGGAACAAAGGAACCTTTAATAGAAAT**TGGACAGCAAGAAAGCGAGCTTCTAGCTCAGGTTTAA**AGCTCCAGGCTTCTTGT**CATGCACCAAGTTCT**  
200 • A G P K R T M C W T R

1601 TGGGCTTCTGGAACCTCAACATCAGCTGT**CACAGTGAATCCAGTCTTTCATAAAAAGGCAGGTTTCTGGGAGCAGAAGTTTCCAGAAAGGCAGGAACT**  
188 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 V  
1701 CCAGCCCTTTCAGCAGCTTCA**ACTCCAGGCAGAACAACAGCAGATCCAGACCCTTTCCCTGGTGGT**CAGGGCTCACTCAACAGTTGCCAGAA**CCAAG**  
154 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 W A **SacI (1875)**

1801 CTGGCTCTTTGGCTGTGTGGT**GCCAGCAGACCTTCCATTTGTTGTTGTGCTGCCAGCCTGTTCCAGAGAGCTCAGCCATTCTTGGTCCA**ATTT**CAGC**  
121 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 E A  
1901 AAAA**CAGCACCAGCTTCAACAGACTCAGGTGTTGTCCAACTGCAACAGCAGCTCCATCATCTGCAACCCAAACTTTTCCAATGTCCAGTCCCACTCTG**  
88 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 R  
2001 GTGAGGAAGAGTTCTTGCAGTTCTGT**CACCCTCTCAATGTGCCTGTCAAGGTCAACTGTGCTTGTG**CAGGGTAGTCTGCAA**AGCAGCAGCCAGTG**  
54 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 L T  
2101 TTCTCAGCTCTT**GGAACATCATCTCTGGTTGCCAGCCTCACTGTGGTTTGTACTCAGTCATGGTGGCCCTCTATAGT**GAGTCGTATTACTATGC  
21 R V A R P V D D R T A L R V T P K Y E T M

**Asel (2220)**  
2201 CGATATACTATGCCGATGATTAATTGTCA**ACTACTGTTTGTAGGCGCCGGT**CACAGCTTGGATCTGTAACGGCGAGAA**CAGAAAACGAAACAAAGACGT**

2301 AGAGTTGAGCAAGCAGGGT**CAGGCAAAGCGTGGAGAGCCGGCTGAGTCTAGGTAGGCTCAAGGGAGCGCCGGACA**AAAGGCCCGTCTCGACCTGAGCTT  
2401 TAAACTTACTAGACGGCGACG**CGAGTTCAGGAGGCACCACAGCGGGAGCGGCAGAACCGGACTCAACCGCGTGGATGGCGGCCTCAGGTAGGGCGG**

**HindIII (2533)** **Psp1406I (2576)**  
2501 CGGGCGGTGAAGGAGAGATGCGAGCCCTCGAAGCTT**CAGCTGTGTTCTGGCGCAAACCCGTTGCGAAAAAGA**CGTT**CACGGCGACTACTGCACTTA**

**AgeI (2689)**  
2601 TATACGGTCTCCCCACCTCGGGAAAAGCGGAGCCAGTACACGACATCACTTTCCAGTTTACCCCGCCACCTTCTCTAGGCACCGGTTCA**ATT**

Spel (2758)

BspLU111 (2786)

2701 GCGACCCTCCCCCACTTCTCGGGACTGTGGCGATGTGCGCTGCCCACTGACTAGTGGCCCTGCAGGTTAATTAAGAACATGTGAGCAAAG  
2801 GCCAGCAAAGGCCAGGAACCGTAAAAAGCCGCTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAGAAAAATCGACGCTCAAGTCA  
2901 GAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCCGACCCTGCCGTTACCGGATAC  
3001 CTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCAAGCTGGGCTGTG  
3101 TGCACGAACCCCCGTTGAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGC  
3201 CACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGT  
3301 ATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGCA  
3401 AGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTCTACGGGTCTGACGCTCAGTGAACGAAAACTCACGTTAAGGGAT

NotI (3536)

3501 TTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAAC  
3601 TAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA