



Sgfl (11) **EcoRI (16)**
 1 GGATCTGCATCGCTGAATTC**TGGGACTTTCCACTGGGGACTTTCCACTGGGACTTTCCACTGGGACTTTCCACTCCTGCAGC**
 101 AGTGGATATTTCCAGAAAAC**TTTTGGATGCAGTTGGGGATTTCCTCTTTACTGGATGTGGACAATATCCTCTATTATTCACAGGAAGCAATCCCTCCT**

HindIII (256) **NcoI (283)**
 201 ATAAAAGGGCCTCAGCAGAAGTAGTGTTCAGCTGTTCTTGGCTGACTTCACATCAAAGCTTCTATACTGACCTGAGACAGAGCCATGGAGGATGCCAAGA
 301 ATATTAAGAAAGGCCCTGCCCATTTCTACCCTCTGGAAGATGGCACTGCTGGTGAGCAACTGCACAAGGCCATGAAGAGGTATGCCCTGGTCCCTGGCAC
 6N I K K G P A P F Y P L E D G T A G E Q L H K A M K R Y A L V P G T
 401 CATTGCCCTTCACTGATGCTCACATTGAGGTGGACATCACCTATGCTGAATACTTTGAGATGCTGTGAGGCTGGCAGAAGCCATGAAAAGATATGGACTG
 39 I A F T D A H I E V D I T Y A E Y F E M S V R L A E A M K R Y G L
 501 AACACCAACCACAGGATTGTGGTGTGCTCTGAGAACTCTCCAGTCTTCATGCCTGTGTTAGGAGCCCTGTTCACTGGAGTGGCTGTGCCCTGCCA
 73 N T N H R I V V C S E N S L Q F F M P V L G A L F I G V A V A P A
SacI (625)
 601 ATGACATCTACAATGAGAGAGCTCCTGAACAGCATGGGCATCAGCCAGCCAACCTGTGGTCTTTGTGAGCAAGAAGGGCCTGCAAAAAGATCCTGAATGT
 106 N D I Y N E R E L L N S M G I S Q P T V V F V S K K G L Q K I L N V
 701 GCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACTGACTACCAGGGCTTCCAGAGCATGTATACCTTTGTGACCAGCCACTTA
 139 Q K K L P I I Q K I I I M D S K T D Y Q G F Q S M Y T F V T S H L
 801 CCCCTGGCTTCAATGAGTATGACTTTGTGCCTGAGAGCTTTGACAGGGACAAGACCATTGCTCTGATTATGAACAGCTCTGGCTCCACTGGACTGCCA
 173 P P G F N E Y D F V P E S F D R D K T I A L I M N S S G S T G L P
 901 AAGGTGTGGCTCTGCCCCACAGAAGCTTGTGTGAGATTGAGCCATGCCAGAGACCCCATCTTTGGCAACCATGATCATCCCTGACTGCCATCCTGTC
 206 K G V A L P H R T A C V R F S H A R D P I F G N Q I I P D T A I L S
Acc65I (1045)
 1001 TGTGGTCCATTCCATCATGGCTTTGGCATGTTCAACAACCTGGGGTACCTGATCTGTGGCTTCCAGAGTGGTGTGATGTATAGGTTTGGAGGAGGCTG
 239 V V P F H H G F G M F T T L G Y L I C G F R V V L M Y R F E E E L
 1101 TTTCTGAGGAGCCTACAAGACTACAAGATCCAGTCTGCCCTGCTGGTCCCACTCTGTTCCAGTCTTTGCCAAGAGCACCCCTATTGACAAGTATGACC
 273 F L R S L Q D Y K I Q S A L L V P T L F S F F A K S T L I D K Y D
 1201 TGAGCAACTGCATGAGATTGCTCTGGAGGAGCACCCCTGAGCAAGGAGTGGTGGAGGCTGTGGCAAGAGGTTCCATCTCCAGGAATCAGACAGGG
 306 L S N L H E I A S G G A P L S K E V G E A V A K R F H L P G I R Q G
 1301 CTATGGCCTGACTGAGACCACCTCTGCCATCCTCATACCCCTGAAGGAGATGACAAGCCTGGTGTGTTGGGCAAGTGGTCCCTTTTTTGGAGCCAAG
 339 Y G L T E T T S A I L I T P E G D D K P G A V G K V V P F F E A K
 1401 GTGGTGGACCTGGACACTGGCAAGACCCTGGGAGTGAACCAGAGGGGTGAGCTGTGTGTGAGGGTCCCATGATCATGTCTGGCTATGTGAACAACCTG
 373 V V D L D T G K T L G V N Q R G E L C V R G P M I M S G Y V N N P
 1501 AGGCCACCAATGCCCTGATTGACAAGGATGGCTGGCTGCACTCTGGTACATTGCCTACTGGGATGAGGATGAGCACTTTTTTATTGTGGACAGGCTGAA
 406 E A T N A L I D K D G W L H S G D I A Y W D E D E H F F I V D R L K
 1601 GAGCCTCATCAAGTACAAAGGCTACCAAGTGGCACCTGCTGAGCTAGAGAGCATCTGCTCCAGCACCCCAACATCTTTGATGCTGGTGTGGCTGGCCTG
 439 S L I K Y K G Y Q V A P A E L E S I L L Q H P N I F D A G V A G L
BstEII (1799)
 1701 CCTGATGATGATGCTGGAGAGCTGCCTGCTGCTGTTGTGGTCTGGAGCATGGAAGACCATGACTGAGAAGGAGATTGTGGACTATGTGCCAGTCAGG
 473 P D D D A G E L P A A V V V L E H G K T M T E K E I V D Y V A S Q
 1801 TGACCACTGCCAAGAAGCTGAGGGGAGGTGGTGGTGTGGATGAGGTGCCAAGGGTCTGACTGGCAAGCTGGATGCCAAGAAGATCAGAGAGATCCT
 506 V T T A K K L R G G V V F V D E V P K G L T G K L D A R K I R E I L
NheI (1944)
 1901 GATCAAGGCCAAGAAGGGTGGCAAAATTGCTGTGTAACCTGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGCAAAACCACAAGTAA
 539 I K A K K G G K I A V •
HpaI (2084)
 2001 ATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCA
EcoRI (2178)
 2101 TTCATTTTATGTTTCAGGTTCCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTCAAATACAGCATAGCA
 2201 AAACCTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTG
 2301 CAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTCCCAAGTTTGAACCTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCCAC
 2401 ATTCCCTTTTTAGTAAAATATTCAGAAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTC
 2501 ATAATATCCCCAGTTTAGTAGTTGGACTTAGGAACAAGGAACCTTAATAGAAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGT
 141 ◀ • N R T Y
SacI (2696)
 2601 ACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCT
 136 ◀ K L P I 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
 2701 GCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCTGTG
 103 ◀ 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 T D F D K Q G N

StuI (2858)

2801 CTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCC
69 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 S I I E G T K T R
2901 TGATGGCCGCCCCGACATGGTGCTTGTGTCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGTGAGAGATGTTGAA
36 I A A G 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

AseI (3065)

3001 GGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAACTACTGTTGTAGGCGCCGGTCACA
3 T K M
3101 GCTTGATCTGTAACGGCGCAGAACAGAAAACGAAACAAAGACGTAGAGTTGAGCAAGCAGGGTCAGGCAAAGCGTGGAGAGCCGGCTGAGTCTAGGTAG
3201 GCTCCAAGGGAGCGCCGACAAAGGCCGGTCTCGACCTGAGCTTTAAACTTACCTAGACGGCGGACGCAGTTCAGGAGGCACCACAGCGGGAGCGCGC

HindIII (3378)

3301 AGAACCGGACTCAACCGCGTGGATGGCGGCCTCAGGTAGGGCGGGCGCGCTGAAGGAGAGATGCGAGCCCTCGAAGCTTCAGCTGTGTTCTGGCGG

Psp1406I (3421)

3401 CAAACCCGTTGCGAAAAAGAACGTTACGGCGACTACTGCACTTATATACGGTTCTCCCCACCCTCGGAAAAAGCGGAGCCAGTACACGACATCACT

AgeI (3534)

3501 TTCCCAGTTTACCCCGCCACCTTCTCTAGGCACCGTTCAATTGCCGACCCTCCCCCAACTTCTCGGGGACTGTGGCGATGTGCGCTCTGCCAC

SpeI (3603)

BspLU11I (3631)

3601 TGACTAGTGGGCCCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGCGTTTTTCCATAG

3701 GCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCTTTCCCCCTGGAAGC

3801 TCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTA

3901 GGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCCTGCGCTTATCCGGTAACTATCGTCT

4001 TGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTTCTTG

4101 AAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGAT

4201 CCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTC

NotI (4381)

4301 TACGGGTCTGACGCTCAGTGGAACGAAAACTCACGTTAAGGGATTTTGGTACGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTT

4401 TATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGC

4501 TGTCACCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA