



2401 GGAGGAGAAGAAGGAGAAGAAGCCAGAAATGCGGCAGACAGTTACTCTGGTTCCAGAGCGAGCTGAGAGCAGGGCCATGGAGAACCAGTACAGTCCG
613▶ E E K K E K K P Q N A A D S Y S W V P E R A E S R A M E N Q Y S P
NcoI (2477)

2501 ACACCTGGGACAGACTGCTGAAAGTGAGGTGCCCTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGT
647▶ T P G T D C •
NheI (2536)

2601 GAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAGTTAACAAACAATTGCATTCATTT
HpaI (2674) MfeI (2685)

2701 TATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTT
EcoRI (2770)

2801 AACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTC
2901 ACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTTGAAGTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCT

3001 TTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATAT
SspI (3009) SwaI (3023)

3101 CCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAG
141 • N R T Y K L

3201 GGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATG
134▶ 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 C M

3301 CCACAGGGGCTGACCACCCTGATGGATCTGCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAG
100▶ 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 S V A
StuI (3448)
Eco147I (3448)

3401 CAGACCCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGC
67▶ 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 I A
BspHI (3598)

3501 CGCCCCGACATGGTGCTTGTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTC
34▶ 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 T K
XmnI (3590)

3601 ATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGA
0M ▶
VspI (3656)
AseI (3656)

3701 CGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTGGAAAGT

3801 CCCGTTGATTTACTAGTCAAAAACAACTCCCATTGACGTCAATGGGGTGAGACTTGAAATCCCCGTGAGTCAAACCCTATCCACGCCATTGATGT
SpeI (3811)

3900 ACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCA
SnaBI (3939)
Eco105I (3939)

4000 GCGGGCCATTTACCCTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACTTGTACTGCAAGTGGGCAGTTTACCGTAAATACTCCACC
NdeI (4044)

4100 CATTGACGTCAATGAAAGTCCCTATTGGCGTTACTATGGAAACATAGCTCATTATTGACGTCAATGGCGGGGCTGTTGGCGGTGAGCCAGCGGGC

4200 CATTACCCTAAGTTATGTAACGCCCTG 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 A A A A G G C C A G A A A A G G C C G T T G C T G G
PstI (4223) SdaI (4222) PciI (4240) BspLU11I (4240)
PacI (4230)

4298 CGTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGACTATAAGATACCAGGCGTT
4398 TCCCCCTGGAAGCTCCCTCGTGGCTCTCTGTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCAT

4498 AGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCCAGCCGACCGCTGCGCCTTATCCG
ApaLI (4554)

4598 GTAACATCGTCTTGAGTCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGC
4698 TACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTT
4798 GGTAGCTCTTGATCCGGCAAAACACCCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATC

4898 CTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCCG
EagI (4990)
PacI (4970) SwaI (4979) NotI (4989)

4998 AATAAAATATCTTTATTTTTCATTACATCTGTGTGTTTTTTTTGTTGTAATCGTAACATAACATACGCTCTCCATCAAAAACAAAACGAAAACAAAACAAAC
5098 TAGCAAAATAGGCTGTCCCAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA