



100

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

101 GAGAAAGTGGCGGGGTAACGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACACGCCGCCGCCCTACCTGAGGCC EcoNI (287)

301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441) **NaeI (441)**
401 GGGCCTTTGTCCGGCGCTCCCTTGAGGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **AgeI (552)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCATCATGAGCCCTGCTCCGTGCGCTGCTGTTGCACT 1► M S P L L R R L L L V A L

EcoO109I (620) **NcoI (670)** **BbrPI (689)**
601 GCTGCAGCTGGCTCGCACCCAGGCCCTGTGCCAGTTTGATGGCCCGACCCAGAACAGAAAGTGGTGCCATGGATAGACGTTTATGCACGTGCCACA 13► L Q L A R T Q A P V S Q F D G P S H Q K K V V P W I D V Y A R A T

XemI (707) **SpeI (762)** **Eco47III (788)**
701 TGCCAGCCAGGGAGGTGGTGGTGCCTCTGAGCATGGAACCTCATGGGCAATGTGGTCAAACAACCTAGTCCCCAGCTGTGTGACTGTGCAGCGCTGTGGTG 47► C Q P R E V V V P L S M E L M G N V V K Q L V P S C V T V Q R C G
801 GCTGCTCCCTGACGATGGCTGGAATGTGTGCCACTGGGCAACCAAGTCCGAATGCAGATCCTCATGATCCAGTACCCGAGCAGTCAGCTGGGGGA 80► G C C P D D G L E C V P T G Q H Q V R M Q I L M I Q Y P S S Q L G E
901 GATGTCCTGGAAGAACACAGCAATGTGAATGCAGACAAAAAAGGAGAGTGTGTGAAGCCAGACAGGTTGCCATACCCACCACCGTCCCCAG 113► M S L E E H S Q C E C R P K K K E S A V K P D R V A I P H H R P Q

BsrBI (1002) **XmaI (1029)** **BamHI (1078)**
1001 CCCCCTCTGTTCCGGGGTGGGACTCTACCCCGGAGCATCCTCCCCAGCTGACATCATCCATCCCCTCCAGCCCCAGGATCCTGCCCCGCTTGAC 147► P R S V P G W D S T P G A S S P A D I I H P T P A P G S S A R L A
1101 CCAGCGCGGTCAACGCCCTGACCCCGGACCTGCGGCTGCCGCTGCAGACGCCCGCTTCTCCATTGCCAAGGCGGGGCTTAGAGCTCAACCCAGAC 180► P S A V N A L T P G P A A A A D A A A S S I A K G G A •

MscI (1250) **NheI (1244)**
1201 ACCTGTAGGTGCCGAAGCCGCGAAAGTGACAAGCTGCTTCCAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAAC TAG

HpaI (1382) **MfeI (1393)**
1301 AATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAATTGC

EcoRI (1478)
1401 ATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTAAATACAGCATAGC
1501 AAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTT
1601 GCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTCCCAAGTTTGAAC TAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCCA

SspI (1717) **SwaI (1731)** **EcoO109I (1792)**
1701 CATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCT
1801 CATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTTAGCTTTAGTTCTGGTG 141► • N R T
1901 TACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTC 136► Y 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
2001 TGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTTGCCCCGT 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 (2156)
2101 GCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGTC 70► 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

XmnI (2298)
2201 CTGATGGCCGCCGACATGGTGTGTTGCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGA 36► R 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

BbsI (2302) **AseI (2364)**
2301 AGGCTTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGC 3► T K M
2401 TATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTT

SpeI (2519)
2501 TGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCC

SnaBI (2647)
2600 ATTGATGTAAGTCCAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCCAAGTAGGAAAGTCCCATAGGTCATGTAAGTGGCA

2700 TAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAAT
2800 ACTCCACCCATTGACGTCAATGGAAAGTCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGCGGGGGTCGTTGGCGGGTCAGCC

NdeI (2752)

2900 AGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGC
2998 GTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATAC
3098 CAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGC

SdaI (2930) **PacI (2938)** **BspLU11I (2948)**

3198 TTTCTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCCGACCGCTGCCG
3298 CTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTA
3398 GCGGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAA
3498 AAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCCAGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCA

ApaLI (3262)

3598 AGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC A

PacI (3678) **SwaI (3687)**

EagI (3698)
NotI (3697)

3698 GCGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGGTTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACA
3798 AAACAACTAGCAAAATAGGCTGTCCCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA