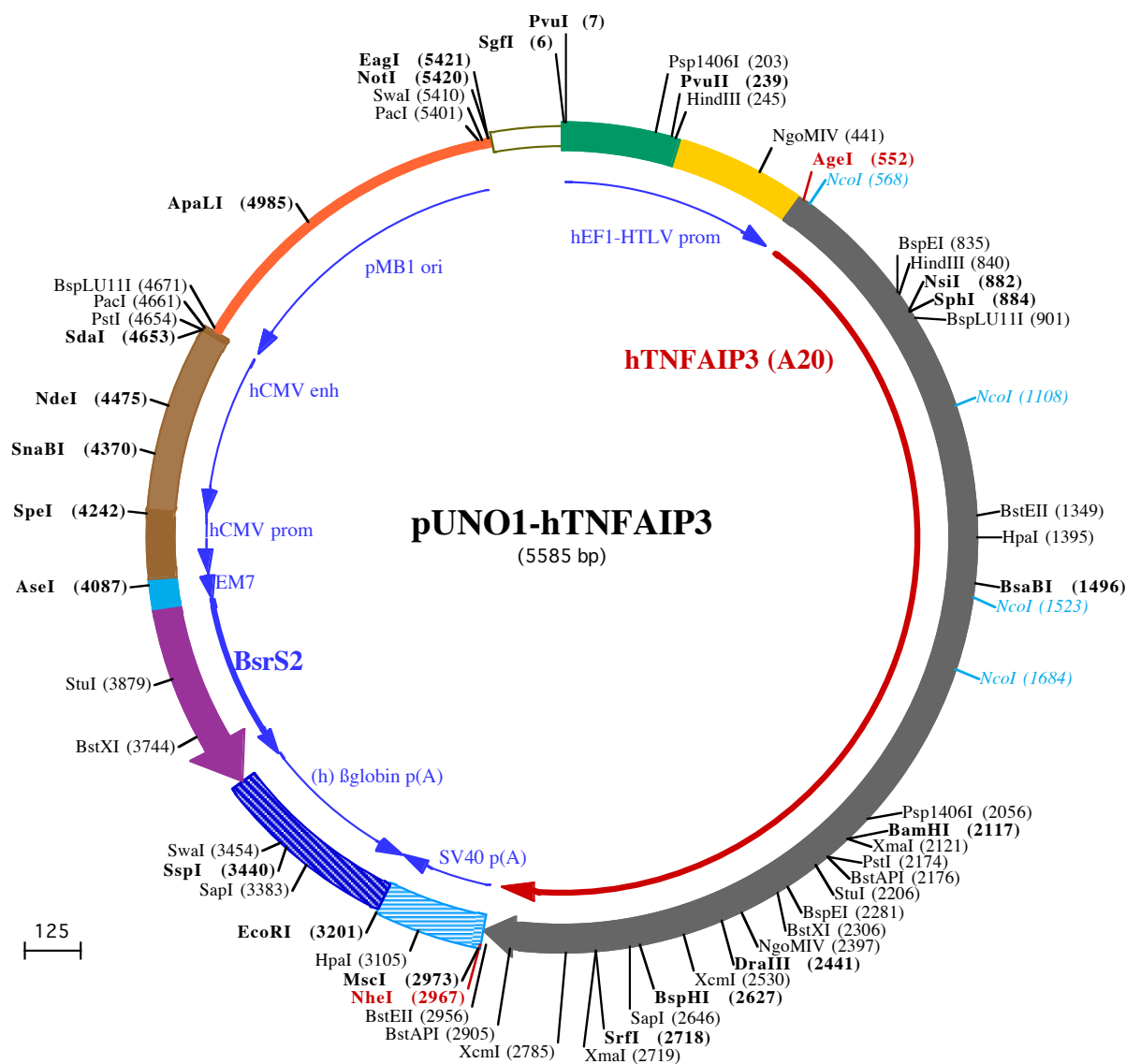




PvuI (7)
SgfI (6)
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGGTAAACTGGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC

HindIII (245)
PvuII (239)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTCACGCGCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCGCGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTCTTTGTTTCGTTT

AgeI (552) **NcoI (568)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCTACCTGAGATCACCGTAGGAGGGCCACCATGGCTGAACAAGTCCTTCTCAGGCTTTG
1 M A E Q V L P Q A L
601 TATTTGAGCAATATGCGGAAAGCTGTGAAGATACGGGAGAGAACTCCAGAAGACATTTTAAACCTACTAATGGGATCATTTCATTTTAAACCATGC
11 Y L S N M R K A V K I R E R T P E D I F K P T N G I I H H F K T M
701 ACCGATACACACTGGAAATGTTGAGAACTTGCCAGTTTGTCTCAGTTTCGGGAGATCATCCACAAAGCCCTCATCGACAGAAACATCCAGGCCACCCT
44 H R Y T L E M F R T C Q F C P Q F R E I I H K A L I D R N I Q A T L

HindIII (840) **SphI (884)**
BspEI (835) **NsiI (882)**
801 GGAAAGCCAGAGAACTCAACTGGTGTGAGAAAGTCCGGAAGCTTGTGGCGCTGAAACGAACGGTGACGGCAATTGCCTCATGCATGCCACTTCTCAG
77 E S Q K K L N W C R E V R K L V A L K T N G D G N C L M H A T S Q
BspLU11I (901)
901 TACATGTGGGGGCTTCAGGACACAGACTTGGTACTGAGGAAGGCGCTGTTGACGACGCTCAAGGAAACAGACACACGCAACTTTAAATCCGCTGGCAAC
111 Y M W G V Q D T D L V L R K A L F S T L K E T D T R N F K F R W Q
1001 TGGAGTCTCTCAAATCTCAGGAATTTGTTGAAACGGGGCTTGTCTATGATACTCGGAAGTGAATGATGAATGGGACAATCTTATCAAATGGCTTCCAC
144 L E S L K S Q E F V E T G L C Y D T R N W N D E W D N L I K M A S T

NcoI (1108)
1101 AGACACACCCATGGCCCCAGTGGACTTCAGTACAACCTCACTGGAAGAAATACACATATTTGTCTTTGCAACATCCTCAGAAGGCCAATCATTGTCATT
177 D T P M A R S G L Q Y N S L E E I H I F V L C N I L R R P I I V I
1201 TCAGACAAATGCTAAGAAGTTTGAATCAGGTTCCAATTTGCCCCCTTGAAGTGGGTGGAATTTACTTGCCTCTCCACTGGCCTGCCAGGAATGCT
211 S D K M L R S L E S G S N F A P L K V G G I Y L P L H W P A Q E C

BstEII (1349) **HpaI (1395)**
1301 ACAGATACCCATTGTTCTCGGCTATGACAGCCATCATTTTGTACCCTTGGTGACCCTGAAGGACAGTGGGCTGAAATCCGAGCTGTTCCACTTGTAA
244 Y R Y P I V L G Y D S H H F V P L V T L K D S G P E I R A V P L V N

BsaBI (1496)
1401 CAGAGACCGGGGAAGATTGGAAGACTTAAAGTTCACTTTTGTACAGATCCTGAAATGAGATGAAGGAGAAGCTCTTAAAGAGTACTTAATGGTGATA
277 R D R G R F E D L K V H F L T D P E N E M K E K L L K E Y L M V I

NcoI (1523)
1501 GAAATCCCGTCCAAGGCTGGGACCATGGCACAACCTCATCTCATCAATGCCGCAAAGTTGGATGAAGCTAACTTACCAAAGAAATCAATCTGGTAGATG
311 E I P V Q G W D H G T T H L I N A A K L D E A N L P K E I N L V D

NcoI (1684)
1601 ATTACTTTGAACCTGTTTCAAGATGAGTACAAGAAATGGCAGGAAAACAGCGAGCGGGGAGGAGAGAGGGGCACGCCAGAACCTTCCGT
344 D Y F E L V Q H E Y K K W Q E N S E Q G R R E G H A Q N P M E P S V
1701 GCCCCAGCTTCTCATGGATGTAAATGTGAACGCCCACTGCCCTTCTCATGTCTGTGAACACCCAGCCTTTATGCCATGAGTGCTCAGAGAGG
377 P Q L S L M D V K C E T P N C P F F M S V N T Q P L C H E C S E R
1801 CGGCAAAAGAAATCAAAACAACTCCAAAGCTGAACTCAAGCGGGCCCTGAGGGGCTCCTGGCATGGCGCTCGGGGCTCTCGGGGAGAAGCCTATG
411 R Q K N Q N K L P K L N S K P G P E G L P G M A L G A S R G E A Y
1901 AGCCCTTGGCGTGAACCTGAGGAGTCCACTGGGGGCTCATTGCGCCCCACCGACAGCACCAGCCCTTTTCTGTTCACTGAGACCACTGCCATGAA
444 E P L A W N P E E S T G G P H S A P P T A P S P F L F S E T T A M K

Psp1406I (2056)
2001 GTGCAGGAGCCCCGGCTGCCCTTCACACTGAATGTGCAGCACAACGGATTTTGTGAACGTTGCCACAACGCCGGCAACTTCACGCCAGCCACGCCCA
477 C R S P G C P F T L N V Q H N G F C E R C H N A R Q L H A S H A P

XmaI (2121) **BstAPI (2176)**
BamHI (2117) **PstI (2174)**
2101 GACCACACAAGGCACTTGGATCCCGGGAAGTGCCAAGCCTGCCTCCAGGATGTTACCAGGACATTTAATGGGATCTGCAGTACTTGCTTCAAAGGACTA
511 D H T R H L D P G K C Q A C L Q D V T R T F N G I C S T C F K R T

StuI (2206) **BspEI (2281)**
2201 CAGCAGAGGCTCTCCAGCCTCAGCACCAGCCTCCCTCCTTCTGTACCAGCGTTCCAAGTCAGATCCCTCGCGGCTCGTCCGGAGCCCTCCCGCA
544 T A E A S S S L S T S L P P S C H Q R S K S D P S R L V R S P S P H

BstXI (2306) **NgoMIV (2397)**
2301 TTCTTGCCACAGAGCTGGAACGACGCCCTGTGGCTGCCTGTCTCAAGCTGCACGACTCCTGGGACAGGACGGGACGAGCAAGTGCAGAAAAGCC
577 S C H R A G N D A P A G C L S Q A A R T P G D R T G T S K C R K A

DraIII (2441)
2401 GGCTGCGTGATTTTGGGACTCCAGAAAACAAGGGCTTTTGCACACTGTGTTTCACTGAGTACAGAGAAAACAACATTTTGTGCTGCTGCCTCAGGGAAG
611 G C V Y F G T P E N K G F C T L C F I E Y R E N K H F A A A S G K

XcmI (2530)
2501 TCAGTCCCACAGCGTCCAGGTTCCAGAACACCATTCGCTGGGAGGGAATGCGGCACCCTTGAAGCACCATGTTTGAAGGATACTGCCAGAAGTG
644 V S P T A S R F Q N T I P C L G R E C G T L G S T M F E G Y C Q K C

BspHI (2627) **SapI** (2646)
 2601 TTTCAATTGAAGCTCAGAATCAGAGATTTTCATGAGGCCAAAAGGACAGAAGAGCAACTGAGATCGAGCCAGCGCAGAGATGTGCCTCGAACACACAAAGC
 677▶ F I E A Q N Q R F H E A K R T E E Q L R S S Q R R D V P R T T Q S
 XmaI (2719)
SrfI (2718) **XcmI** (2785)
 2701 ACCTCAAGGCCCAAGTGCGCCCGGGCCTCTGCAAGAACATCCTGGCCTGCCGAGCGAGGAGCTCTGCATGGAGTGTGAGCATCCCAACAGAGGATGG
 711▶ T S R P K C A R A S C K N I L A C R S E E L C M E C Q H P N Q R M
 2801 GCCCTGGGGCCACCGGGGTGAGCCTGCCCGGGAAGACCCCGCAAGCAGCGTTGCCGGGCCCCCGCCTGTGATCATTTTGGCAATGCCAAGTGCAACGG
 744▶ G P G A H R G E P A P E D P P K Q R C R A P A C D H F G N A K C N G
MscI (2973)
BstAPI (2905) **BstEII** (2956) **NheI** (2967)
 2901 CTACTGCAACGAATGCTTTCAGTTCAAGCAGATGTATGGCTAACCGGAAACAGGTGGGTACCTCCTGCTAGCTGGCCAGACATGATAAGATACATTGAT
 777▶ Y C N E C F Q F K Q M Y G •
 3001 GAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATA

HpaI (3105)
 3101 AACCAAGTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTAT

EcoRI (3201)
 3201 GGAATTCTAAATACAGCATAGCAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTG
 ▶ ◀

SapI (3383)
 3301 TTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTCATGGAGTTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTACTAGCTCTTCATTCTTTAT

SspI (3440) **SwaI** (3454)
 3401 GTTTTAAATGCACTGACCTCCACATTCCCTTTTGTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTATTAGGCA

 3501 GAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGA

 3601 GCTTCTAGCTTTTAGTTCTGCTGGTGACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGG
 141▶ • N R T 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
BstXI (3744)
 3701 AGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGTAGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATG
 111▶ A Y D S I L E R 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
StuI (3879)
 3801 GTGTCAAAGTCCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCTGCCAATGTAGGCTCAATGTGGACAGCAG
 77▶ T D F D K Q G N 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
 3901 AGATGATCTCCCCAGTCTTGGTCTGATGGCGCCCGACATGGTGCTTGTGCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTC
 44▶ I I E G T K T 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
AseI (4087)
 4001 CAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAA
 11▶ L D Q Q S I N F T K M ◀
 4101 ACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTCGCTCAAT

SpeI (4242)
 4201 GGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAACAACTCCATTGACGTCAATGGGGTGAGACTTGGAATCCCCGTG
 ◀

SnaBI (4370)
 4301 AGTCAAACGCTATCCACGCCATTGATGTACTGCCAAAACGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTC

NdeI (4475)
 4401 CCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCC

 4501 AAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGC

PacI (4661)
PstI (4654) **SdaI** (4653) **BspLU11I** (4671)
 4601 GGGGGTCTTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCGAGGTTAATAAGAACATGTGAGCAAAAGGCCAGAAAAGGCC
 ◀
 4701 AGGAACCGTAAAAAGGCCGCTTGTGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAATAATCAGCGCTCAAGTCAGAGGTGGCGAAACC

 4801 CGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCT

ApaLI (4985)
 4901 CCCTTCGGGAAGCGTGGCGCTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCC

 5001 GTTCAGCCCGACCGCTGCGCCTTATCCGGTAACATATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGA

 5101 TTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCT

 5201 GAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTGCAAGCAGCAGATTACG

 5301 CGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGCTGACGCTCAGTGGAACGAAACCTCACGTTAAGGGATTTTGGTCATGGCTA

EagI (5421)

PacI (5401) SmaI (5410) **NotI (5420)**

5401 **GTTAATTAACATTTAAATC** **AGCGGCCG**CAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTGTGTGAATCGTAACTAACATACGCTCTC
—
5501 CATCAAAACAAACGAAACAAACAAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA