Tue Jul 14, 2015 13:35 -0500
YS14.seq
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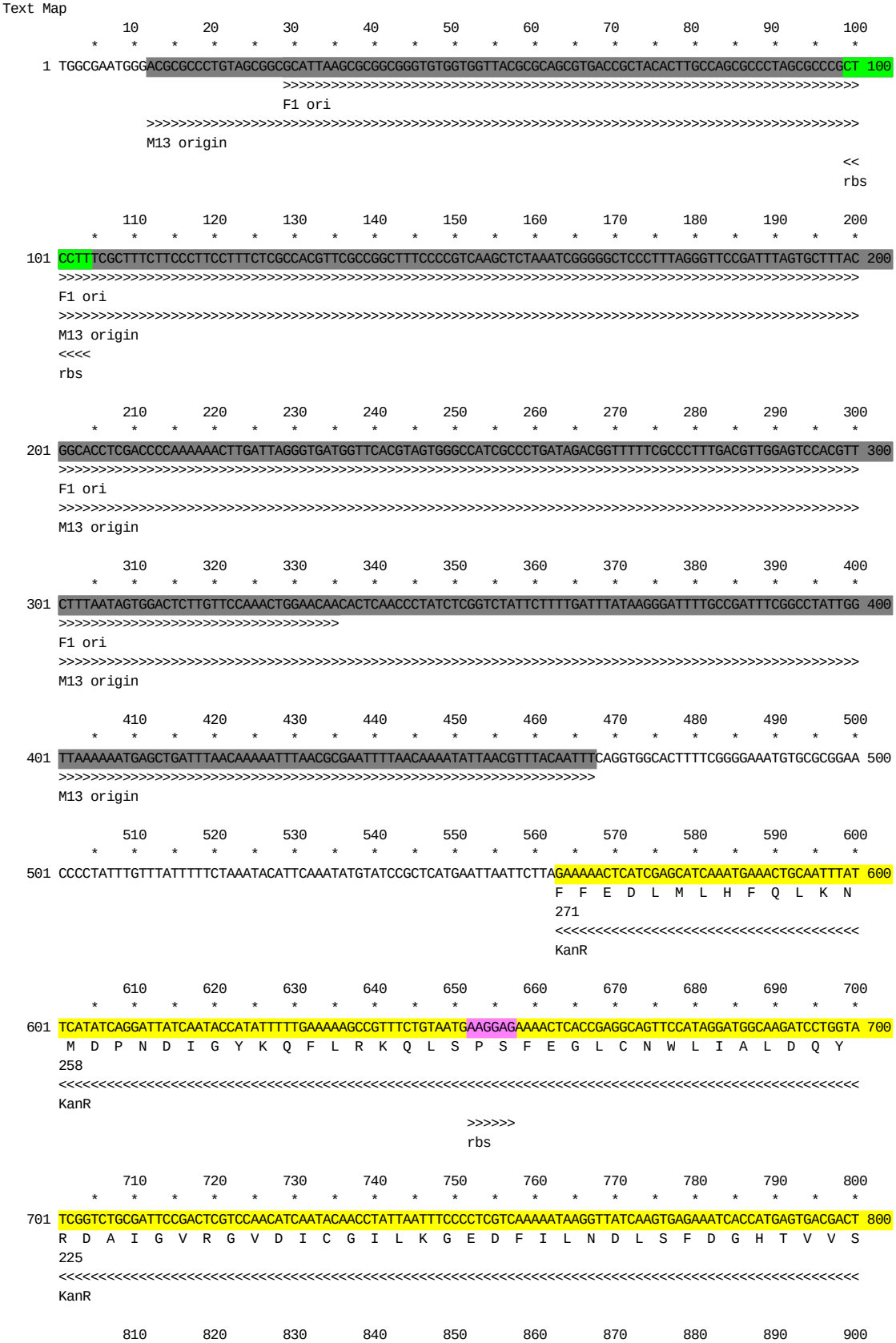

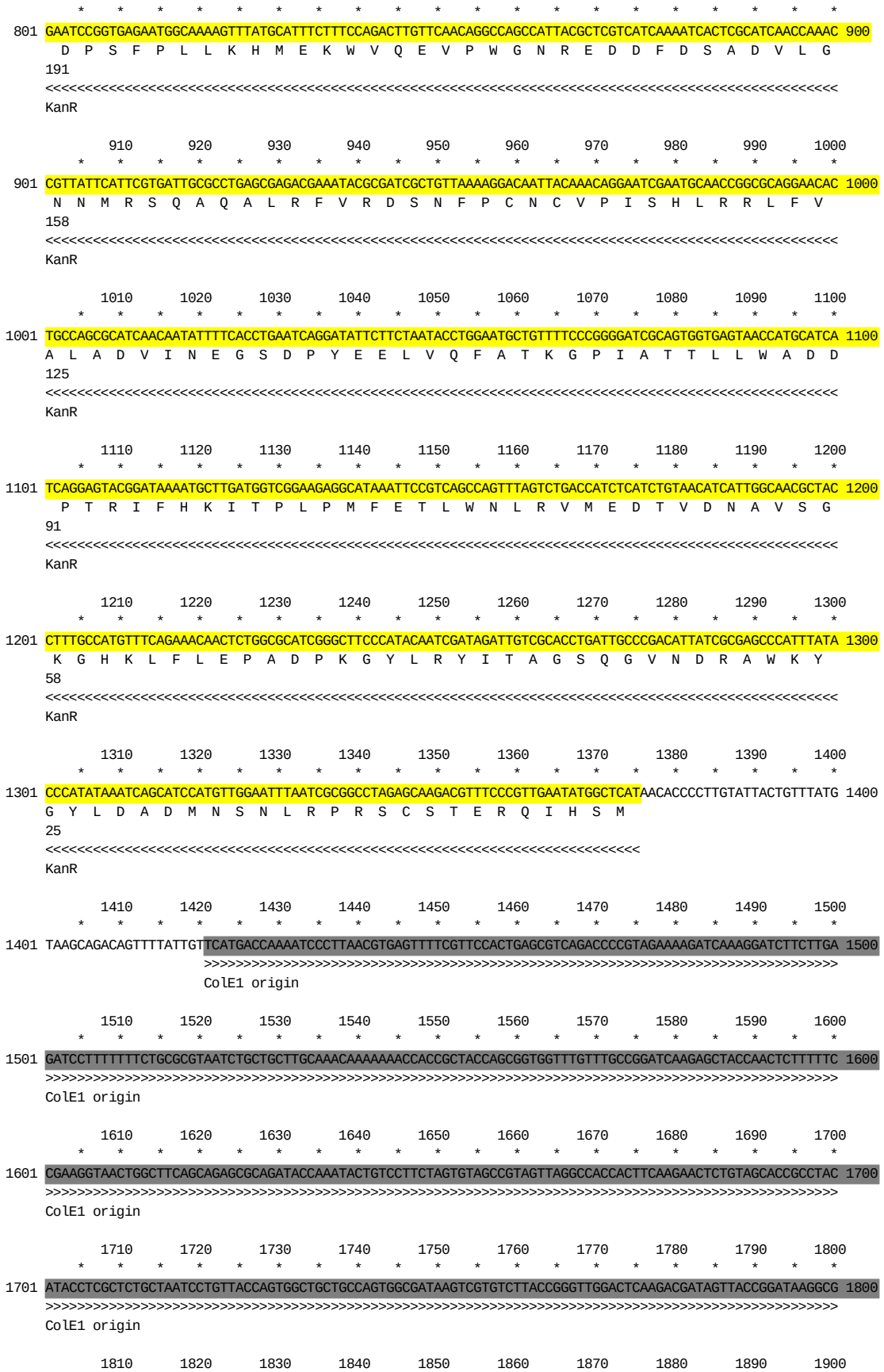
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191
KanR
910 920 930 940 950 960 970 980 990 1000
901 CGTTATTCATTCGTGATTGCGCCTGAGCGAGACGAAATACGCGATCGCTGTTAAAAGGACAATTACAAACAGGAATCGAATGCAACCGGCGCAGGAACAC 1000
N N M R S Q A Q A L R F V R D S N F P C N C V P I S H L R R L F V
158
KanR
1010 1020 1030 1040 1050 1060 1070 1080 1090 1100
1001 TGCCAGCGCATCAACAATATTTTCACCTGAATCAGGATATTCTTCTAATACCTGGAATGCTGTTTTCCCGGGGATCGCAGTGGTGAGTAACCATGCATCA 1100
A L A D V I N E G S D P Y E E L V Q F A T K G P I A T T L L W A D D
125
KanR
1110 1120 1130 1140 1150 1160 1170 1180 1190 1200
1101 TCAGGAGTACGGATAAAATGCTTGATGGTCGGAAGAGGCATAAATTCCGTCAGCCAGTTTAGTCTGACCATCTCATCTGTAACATCATTGGCAACGCTAC 1200
P T R I F H K I T P L P M F E T L W N L R V M E D T V D N A V S G
91
KanR
1210 1220 1230 1240 1250 1260 1270 1280 1290 1300
1201 CTTTGCCATGTTTCAGAAACAACTCTGGCGCATCGGGCTTCCCATACAATCGATAGATTGTCGCACCTGATTGCCCGACATTATCGCGAGCCCATTTATA 1300
K G H K L F L E P A D P K G Y L R Y I T A G S Q G V N D R A W K Y
58
KanR
1310 1320 1330 1340 1350 1360 1370 1380 1390 1400
1301 CCCATATAAATCAGCATCCATGTTGGAATTTAATCGCGGCCTAGAGCAAGACGTTTCCCGTTGAATATGGCTCATAACACCCCTTGTATTACTGTTTATG 1400
G Y L D A D M N S N L R P R S C S T E R Q I H S M
25
KanR
1410 1420 1430 1440 1450 1460 1470 1480 1490 1500
1401 TAAGCAGACAGTTTTATTGTTCATGACCAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGA 1500
ColE1 origin
1510 1520 1530 1540 1550 1560 1570 1580 1590 1600
1501 GATCCTTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGTGGTTTGTTTGCCGGATCAAGAGCTACCAACTCTTTTTC 1600
ColE1 origin
1610 1620 1630 1640 1650 1660 1670 1680 1690 1700
1601 CGAAGGTAACTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTAC 1700
ColE1 origin
1710 1720 1730 1740 1750 1760 1770 1780 1790 1800
1701 ATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCG 1800
ColE1 origin
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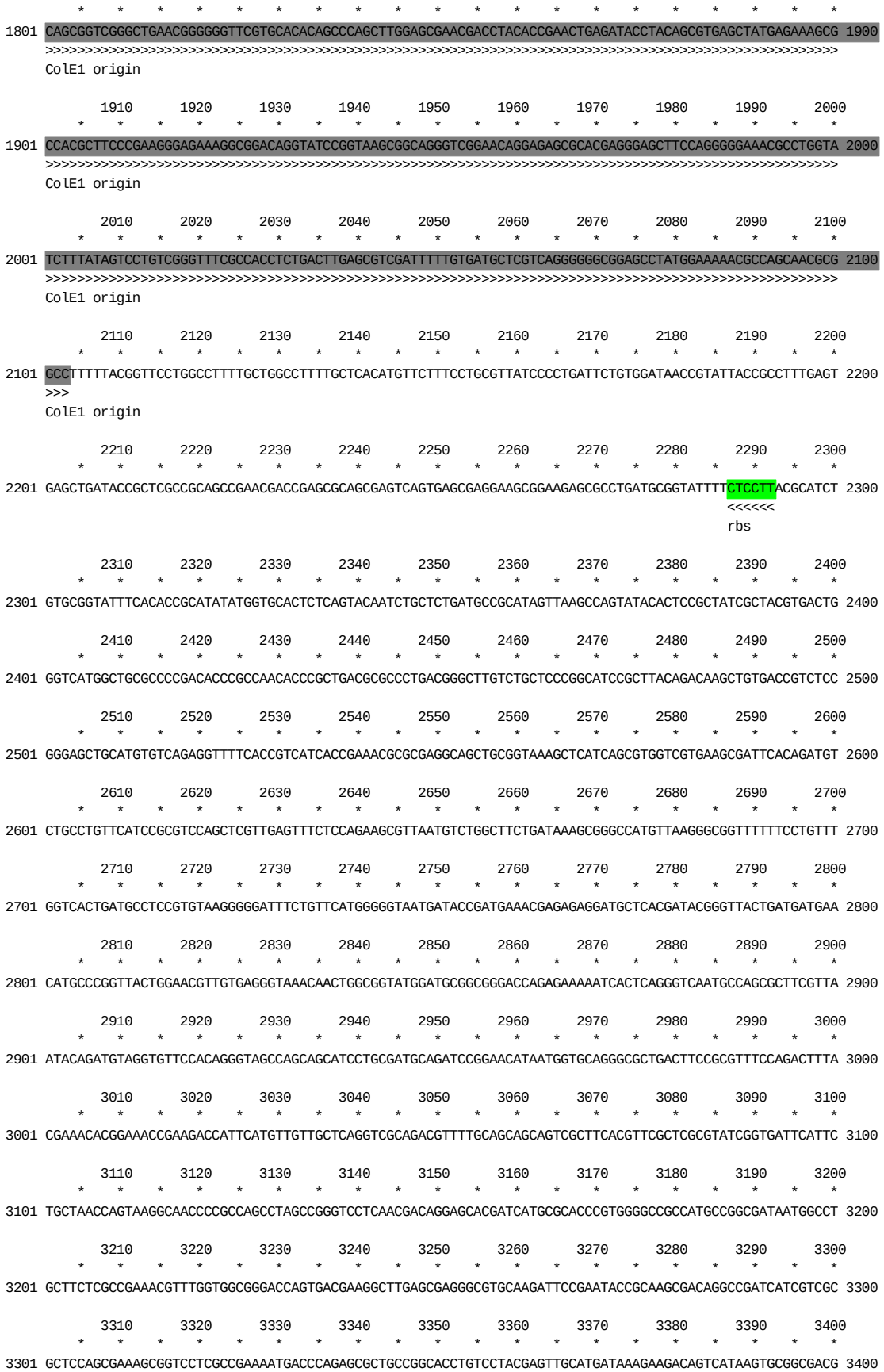
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ColE1 origin
2001 TCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCG 2100
ColE1 origin
2101 GCCTTTTTACGGTTCCTGGCCTTTTGCTGGCCTTTTGCTCACATGTTCTTTCCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCTTTGAGT 2200
ColE1 origin
2201 GAGCTGATACCGCTCGCCGCAGCCGAACGACCGAGCGCAGCGAGTCAGTGAGCGAGGAAGCGGAAGAGCGCCTGATGCGGTATTTTCTCCTTACGCATCT 2300
rbs
2301 GTGCGGTATTTCACACCGCATATATGGTGCACTCTCAGTACAATCTGCTCTGATGCCGCATAGTTAAGCCAGTATACACTCCGCTATCGCTACGTGACTG 2400
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2601 CTGCCTGTTCATCCGCGTCCAGCTCGTTGAGTTTCTCCAGAAGCGTTAATGTCTGGCTTCTGATAAAGCGGGCCATGTTAAGGGCGGTTTTTTCCTGTTT 2700
2701 GGTCACTGATGCCTCCGTGTAAGGGGGATTTCTGTTCATGGGGGTAATGATACCGATGAAACGAGAGAGGATGCTCACGATACGGGTTACTGATGATGAA 2800
2801 CATGCCCGGTTACTGGAACGTTGTGAGGGTAAACAACTGGCGGTATGGATGCGGCGGGACCAGAGAAAAATCACTCAGGGTCAATGCCAGCGCTTCGTTA 2900
2901 ATACAGATGTAGGTGTTCCACAGGGTAGCCAGCAGCATCCTGCGATGCAGATCCGGAACATAATGGTGCAGGGCGCTGACTTCCGCGTTTCCAGACTTTA 3000
3001 CGAAACACGGAAACCGAAGACCATTCATGTTGTTGCTCAGGTCGCAGACGTTTTGCAGCAGCAGTCGCTTCACGTTCGCTCGCGTATCGGTGATTCATTC 3100
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3201 GCTTCTCGCCGAAACGTTTGGTGGCGGGACCAGTGACGAAGGCTTGAGCGAGGGCGTGCAAGATTCCGAATACCGCAAGCGACAGGCCGATCATCGTCGC 3300
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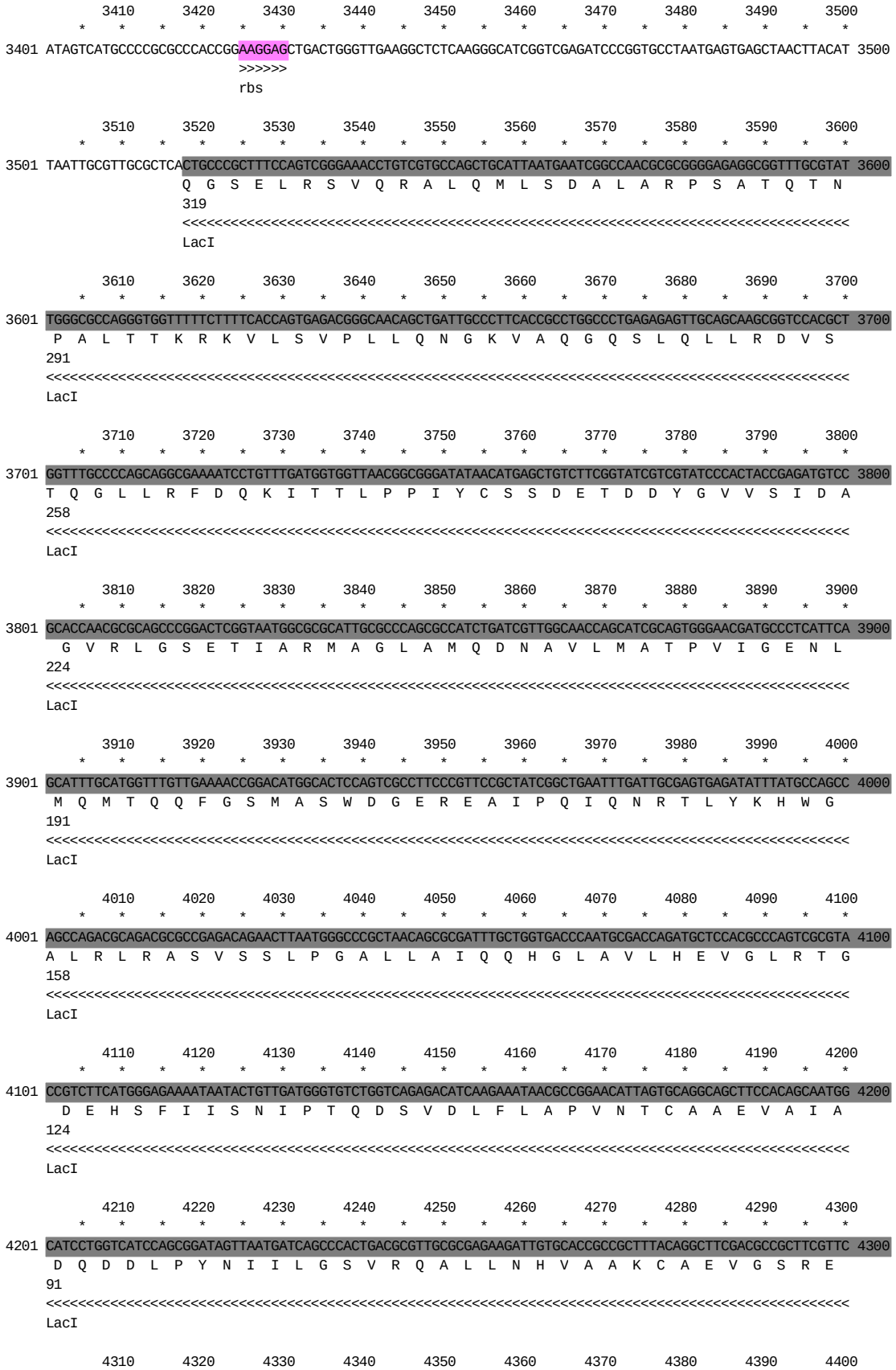
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3401 ATAGTCATGCCCCGCGCCCACCGGAAGGAGCTGACTGGGTTGAAGGCTCTCAAGGGCATCGGTCGAGATCCCGGTGCCTAATGAGTGAGCTAACTTACAT 3500
>>>>>>
rbs
3510 3520 3530 3540 3550 3560 3570 3580 3590 3600
3501 TAATTGCGTTGCGCTCACTGCCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTGCGTAT 3600
Q G S E L R S V Q R A L Q M L S D A L A R P S A T Q T N
319
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
LacI
3610 3620 3630 3640 3650 3660 3670 3680 3690 3700
3601 TGGGCGCCAGGGTGGTTTTTCTTTTCACCAGTGAGACGGGCAACAGCTGATTGCCCTTCACCGCCTGGCCCTGAGAGAGTTGCAGCAAGCGGTCCACGCT 3700
P A L T T K R K V L S V P L L Q N G K V A Q G Q S L Q L L R D V S
291
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
LacI
3710 3720 3730 3740 3750 3760 3770 3780 3790 3800
3701 GGTTTGCCCCAGCAGGCGAAAATCCTGTTTGATGGTGGTTAACGGCGGGATATAACATGAGCTGTCTTCGGTATCGTCGTATCCCACTACCGAGATGTCC 3800
T Q G L L R F D Q K I T T L P P I Y C S S D E T D D Y G V V S I D A
258
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
LacI
3810 3820 3830 3840 3850 3860 3870 3880 3890 3900
3801 GCACCAACGCGCAGCCCGGACTCGGTAATGGCGCGCATTGCGCCCAGCGCCATCTGATCGTTGGCAACCAGCATCGCAGTGGGAACGATGCCCTCATTCA 3900
G V R L G S E T I A R M A G L A M Q D N A V L M A T P V I G E N L
224
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
LacI
3910 3920 3930 3940 3950 3960 3970 3980 3990 4000
3901 GCATTTGCATGGTTTGTTGAAAACCGGACATGGCACTCCAGTCGCCTTCCCGTTCCGCTATCGGCTGAATTTGATTGCGAGTGAGATATTTATGCCAGCC 4000
M Q M T Q Q F G S M A S W D G E R E A I P Q I Q N R T L Y K H W G
191
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LacI
4010 4020 4030 4040 4050 4060 4070 4080 4090 4100
4001 AGCCAGACGCAGACGCGCCGAGACAGAACTTAATGGGCCCGCTAACAGCGCGATTTGCTGGTGACCCAATGCGACCAGATGCTCCACGCCCAGTCGCGTA 4100
A L R L R A S V S S L P G A L L A I Q Q H G L A V L H E V G L R T G
158
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
LacI
4110 4120 4130 4140 4150 4160 4170 4180 4190 4200
4101 CCGTCTTCATGGGAGAAAATAATACTGTTGATGGGTGTCTGGTCAGAGACATCAAGAAATAACGCCGGAACATTAGTGCAGGCAGCTTCCACAGCAATGG 4200
D E H S F I I S N I P T Q D S V D L F L A P V N T C A A E V A I A
124
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
LacI
4210 4220 4230 4240 4250 4260 4270 4280 4290 4300
4201 CATCCTGGTCATCCAGCGGATAGTTAATGATCAGCCCACTGACGCGTTGCGCGAGAAGATTGTGCACCGCCGCTTTACAGGCTTCGACGCCGCTTCGTTC 4300
D Q D D L P Y N I I L G S V R Q A L L N H V A A K C A E V G S R E
91
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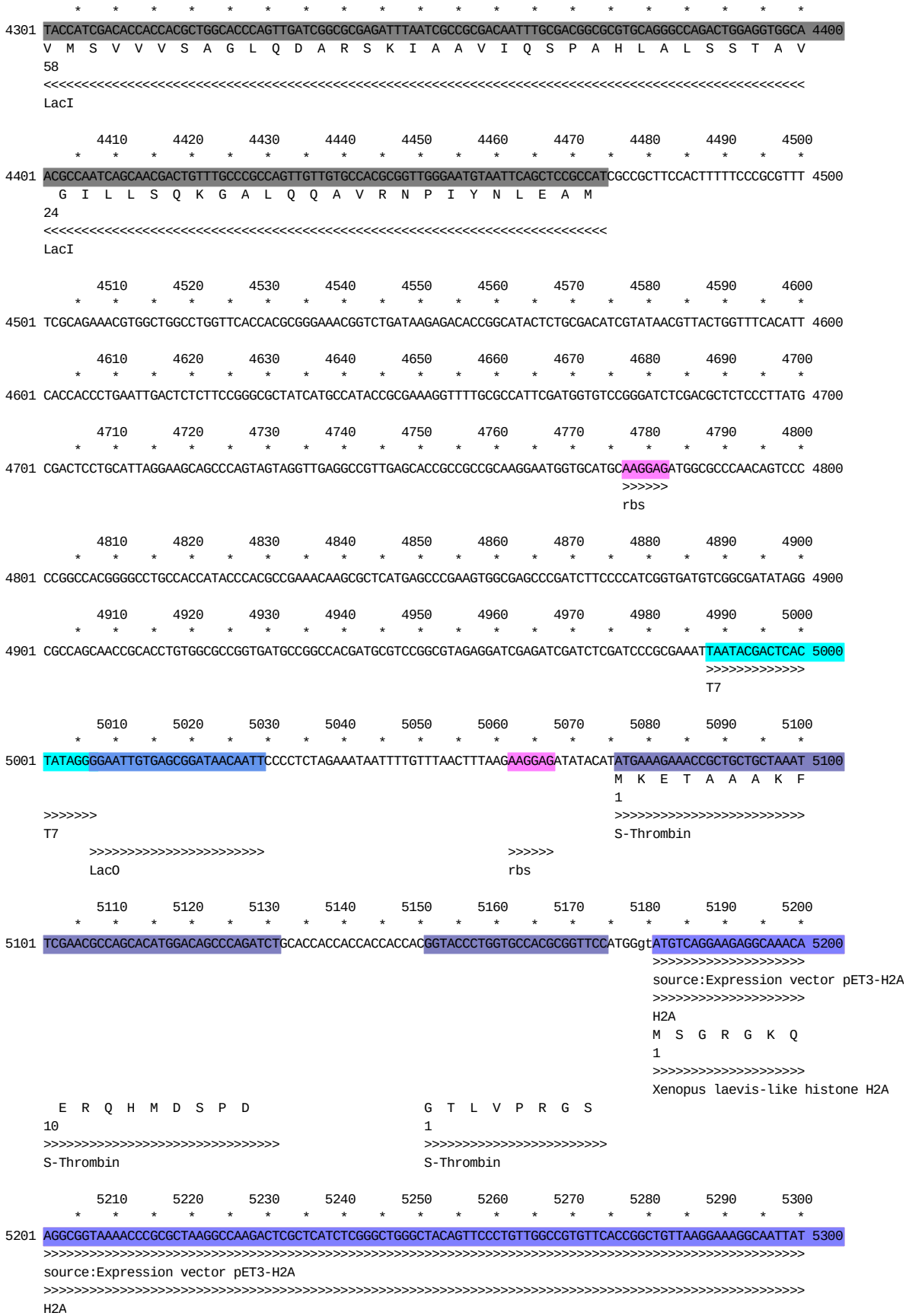
LacI
4310 4320 4330 4340 4350 4360 4370 4380 4390 4400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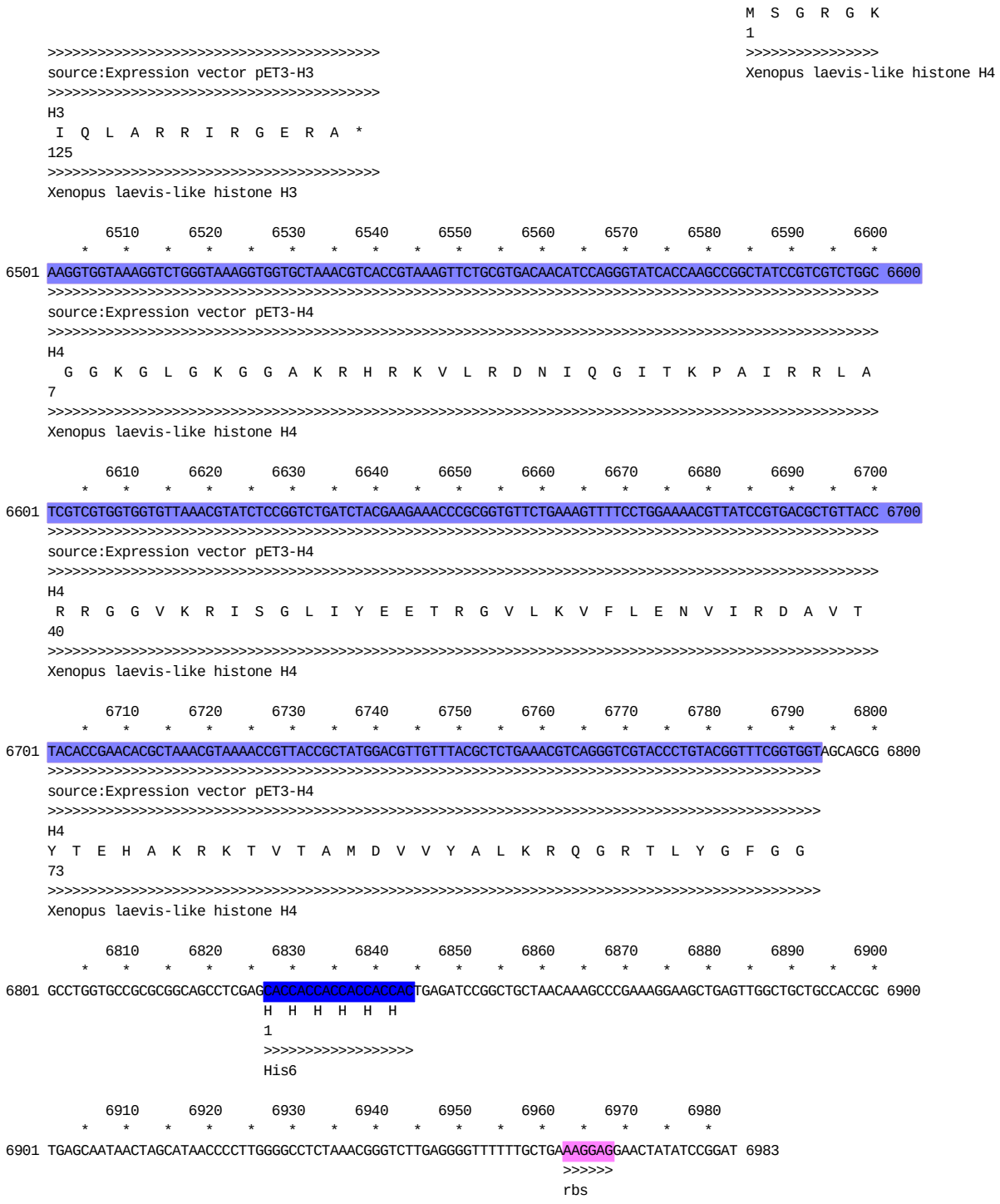
V M S V V V S A G L Q D A R S K I A A V I Q S P A H L A L S S T A V
58
LacI
4401 ACGCCAATCAGCAACGACTGTTTGCCCGCCAGTTGTTGTGCCACGCGGTTGGGAATGTAATTCAGCTCCGCCATCGCCGCTTCCACTTTTTCCCGCGTTT 4500
G I L L S Q K G A L Q Q A V R N P I Y N L E A M
24
LacI
4501 TCGCAGAAACGTGGCTGGCCTGGTTCACCACGCGGGAAACGGTCTGATAAGAGACACCGGCATACTCTGCGACATCGTATAACGTTACTGGTTTCACATT 4600
4601 CACCACCCTGAATTGACTCTCTTCCGGGCGCTATCATGCCATACCGCGAAAGGTTTTGCGCCATTCGATGGTGTCCGGGATCTCGACGCTCTCCCTTATG 4700
4701 CGACTCCTGCATTAGGAAGCAGCCCAGTAGTAGGTTGAGGCCGTTGAGCACCGCCGCCGCAAGGAATGGTGCATGCAAGGAGATGGCGCCCAACAGTCCC 4800
rbs
4801 CCGGCCACGGGGCCTGCCACCATACCCACGCCGAAACAAGCGCTCATGAGCCCGAAGTGGCGAGCCCGATCTTCCCCATCGGTGATGTCGGCGATATAGG 4900
4901 CGCCAGCAACCGCACCTGTGGCGCCGGTGATGCCGGCCACGATGCGTCCGGCGTAGAGGATCGAGATCGATCTCGATCCCGCGAAATTAATACGACTCAC 5000
T7
5001 TATAGGGGAATTGTGAGCGGATAACAATTCCCCTCTAGAAATAATTTTGTTTAACTTTAAGAAGGAGATATACATATGAAAGAAACCGCTGCTGCTAAAT 5100
M K E T A A A K F
1
T7
S-Thrombin
LacO
rbs
5101 TCGAACGCCAGCACATGGACAGCCCAGATCTGCACCACCACCACCACCACGGTACCCTGGTGCCACGCGGTTCCATGGgtATGTCAGGAAGAGGCAAACA 5200
source:Expression vector pET3-H2A
H2A
M S G R G K Q
1
Xenopus laevis-like histone H2A
E R Q H M D S P D
10
S-Thrombin
G T L V P R G S
1
S-Thrombin
5201 AGGCGGTAAAACCCGCGCTAAGGCCAAGACTCGCTCATCTCGGGCTGGGCTACAGTTCCCTGTTGGCCGTGTTCACCGGCTGTTAAGGAAAGGCAATTAT 5300
source:Expression vector pET3-H2A
H2A

```
      G  G  K  T  R  A  K  A  K  T  R  S  S  R  A  G  L  Q  F  P  V  G  R  V  H  R  L  L  R  K  G  N  Y
     8
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H2A

            5310      5320      5330      5340      5350      5360      5370      5380      5390      5400
               *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
5301 GCAGAGCGGGTGGGAGCTGGAGCTCCAGTCTATCTGGCTGCAGTGTTGGAGTATCTGACCGCTGAGATTTTGGAATTGGCCGGGAATGCGGCCCGTGATA 5400
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     source:Expression vector pET3-H2A
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     H2A
     A  E  R  V  G  A  G  A  P  V  Y  L  A  A  V  L  E  Y  L  T  A  E  I  L  E  L  A  G  N  A  A  R  D  N
     41
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H2A

            5410      5420      5430      5440      5450      5460      5470      5480      5490      5500
               *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
5401 ACAAGAAGACTCGCATTATCCCCAGACACCTGCAGCTCGCTGTGCGCAACGATGAGGAACTGAACAAACTGCTCGGAAGAGTCACTATCGCTCAGGGCGG 5500
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     source:Expression vector pET3-H2A
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     H2A
       K  K  T  R  I  I  P  R  H  L  Q  L  A  V  R  N  D  E  E  L  N  K  L  L  G  R  V  T  I  A  Q  G  G
     75
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H2A

            5510      5520      5530      5540      5550      5560      5570      5580      5590      5600
               *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
5501 GGTCCTGCCCAACATCCAGTCCGTGCTGCTGCCCAAGAAAACCGAGAGTTCCAAGTCGGCCAAGAGCAAGTGAGAATTCAATAATTTTGTTTAACTTTAA 5600
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     source:Expression vector pET3-H2A
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     H2A
      V  L  P  N  I  Q  S  V  L  L  P  K  K  T  E  S  S  K  S  A  K  S  K  *
     108
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H2A

            5610      5620      5630      5640      5650      5660      5670      5680      5690      5700
               *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
5601 GAAGGAGATATACATATGGCCAAGTCCGCTCCAGCCCCGAAGAAAGGCTCCAAGAAAGCGGTGACCAAGACTCAGAAGAAAGACGGGAAAAAGCGCAGGA 5700
                    >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
                    source:Expression vector pET3-H2B
                    >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
                    H2B
                    M  A  K  S  A  P  A  P  K  K  G  S  K  K  A  V  T  K  T  Q  K  K  D  G  K  K  R  R  K
                    1
                    >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
                    Xenopus laevis-like histone H2B

            5710      5720      5730      5740      5750      5760      5770      5780      5790      5800
               *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
5701 AGACAAGGAAGGAGAGTTATGCCATTTACGTGTACAAGGTGCTGAAGCAGGTGCACCCCGATACCGGCATCTCGTCCAAGGCCATGAGCATCATGAACTC 5800
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     source:Expression vector pET3-H2B
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     H2B
       T  R  K  E  S  Y  A  I  Y  V  Y  K  V  L  K  Q  V  H  P  D  T  G  I  S  S  K  A  M  S  I  M  N  S
     30
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H2B

            5810      5820      5830      5840      5850      5860      5870      5880      5890      5900
               *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
5801 CTTTGTCAACGATGTGTTTGAGCGCATCGCAGGGGAAGCCTCCCGCCTGGCTCATTACAACAAGCGCTCCACCATCACCTCCCGGGAGATCCAGACCGCG 5900
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     source:Expression vector pET3-H2B
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     H2B
```

```
      F  V  N  D  V  F  E  R  I  A  G  E  A  S  R  L  A  H  Y  N  K  R  S  T  I  T  S  R  E  I  Q  T  A
     63
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H2B

              5910      5920      5930      5940      5950      5960      5970      5980      5990      6000
         *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
5901 GTCCGACTGCTGCTGCCTGGGGAGTTGGCCAAACACGCCGTGTCCGAGGGCACCAAGGCTGTCACCAAGTACACCAGCGCCAAGTAAGTCGACAATAATT 6000
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     source:Expression vector pET3-H2B
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     H2B
     V  R  L  L  L  P  G  E  L  A  K  H  A  V  S  E  G  T  K  A  V  T  K  Y  T  S  A  K  *
     96
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H2B

              6010      6020      6030      6040      6050      6060      6070      6080      6090      6100
         *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
6001 TTGTTTAACTTTAAGAAGGAGATATACATATGGCCCGTACCAAGCAGACCGCCCGTAAATCCACCGGAGGGAAGGCTCCCCGCAAGCAGCTGGCCACCAA 6100
                                   >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
                                   source:Expression vector pET3-H3
                                   >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
                                   H3
                                   M  A  R  T  K  Q  T  A  R  K  S  T  G  G  K  A  P  R  K  Q  L  A  T  K
                                   1
                                   >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
                                   Xenopus laevis-like histone H3

              6110      6120      6130      6140      6150      6160      6170      6180      6190      6200
         *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
6101 GGCAGCCAGGAAGTCCGCTCCTGCTACCGGCGGAGTCAAGAAACCTCACCGTTACCGGCCCGGCACAGTCGCTCTCCGCGAGATCCGCCGCTACCAGAAA 6200
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     source:Expression vector pET3-H3
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     H3
      A  A  R  K  S  A  P  A  T  G  G  V  K  K  P  H  R  Y  R  P  G  T  V  A  L  R  E  I  R  R  Y  Q  K
     25
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H3

              6210      6220      6230      6240      6250      6260      6270      6280      6290      6300
         *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
6201 TCCACCGAGCTGCTCATCCGCAAACTGCCTTTCCAGCGCCTGGTCCGGGAGATCGCTCAGGACTTCAAGACCGACCTGCGCTTCCAGAGCTCGGCCGTTA 6300
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     source:Expression vector pET3-H3
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     H3
     S  T  E  L  L  I  R  K  L  P  F  Q  R  L  V  R  E  I  A  Q  D  F  K  T  D  L  R  F  Q  S  S  A  V  M
     58
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H3

              6310      6320      6330      6340      6350      6360      6370      6380      6390      6400
         *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
6301 TGGCTCTGCAGGAGGCCAGCGAGGCTTATCTGGTCGCTCTCTTTGAGGACACCAACCTGTGCGCCATCCACGCCAAGAGGGTCACCATCATGCCCAAGGA 6400
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     source:Expression vector pET3-H3
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     H3
       A  L  Q  E  A  S  E  A  Y  L  V  A  L  F  E  D  T  N  L  C  A  I  H  A  K  R  V  T  I  M  P  K  D
     92
     >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     Xenopus laevis-like histone H3

              6410      6420      6430      6440      6450      6460      6470      6480      6490      6500
         *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *    *
6401 CATCCAGCTGGCCCGCAGAATCCGAGGCGAGAGGGCTTAGGCGGCCGCAATAATTTTGTTTAACTTTAAGAAGGAGATATACATATGTCTGGTCGTGGTA 6500
                                                                                         >>>>>>>>>>>>>>>>
                                                                                         source:Expression vector pET3-H4
                                                                                         >>>>>>>>>>>>>>>>
                                                                                         H4
```


M S G R G K
1
Xenopus laevis-like histone H4
source:Expression vector pET3-H3
H3
I Q L A R R I R G E R A *
125
Xenopus laevis-like histone H3
6501 AAGGTGGTAAAGGTCTGGGTAAAGGTGGTGCTAAACGTCACCGTAAAGTTCTGCGTGACAACATCCAGGGTATCACCAAGCCGGCTATCCGTCGTCTGGC 6600
source:Expression vector pET3-H4
H4
G G K G L G K G G A K R H R K V L R D N I Q G I T K P A I R R L A
7
Xenopus laevis-like histone H4
6601 TCGTCGTGGTGGTGTTAAACGTATCTCCGGTCTGATCTACGAAGAAACCCGCGGTGTTCTGAAAGTTTTCCTGGAAAACGTTATCCGTGACGCTGTTACC 6700
source:Expression vector pET3-H4
H4
R R G G V K R I S G L I Y E E T R G V L K V F L E N V I R D A V T
40
Xenopus laevis-like histone H4
6701 TACACCGAACACGCTAAACGTAAAACCGTTACCGCTATGGACGTTGTTTACGCTCTGAAACGTCAGGGTCGTACCCTGTACGGTTTCGGTGGTAGCAGCG 6800
source:Expression vector pET3-H4
H4
Y T E H A K R K T V T A M D V V Y A L K R Q G R T L Y G F G G
73
Xenopus laevis-like histone H4
6801 GCCTGGTGCCGCGCGGCAGCCTCGAGCACCACCACCACCACCACTGAGATCCGGCTGCTAACAAAGCCCGAAAGGAAGCTGAGTTGGCTGCTGCCACCGC 6900
H H H H H H
1
His6
6901 TGAGCAATAACTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGCTGAAAGGAGGAACTATATCCGGAT 6983
rbs