

Figure S11. Nucleotide sequence of bacterial expression vector pET28a-CNA35-tdTomato

```
1  atgggcagcagccatcatcatcatcatcagcagcggcctgggtgccgcgcgggcagccat
   M  G  S  S  H  H  H  H  H  H  S  S  G  L  V  P  R  G  S  H
61  atggctagctcaggtgcagaattccacggatccgcacgagatatttcatcaacgaatggt
   M  A  S  S  G  A  E  F  H  G  S  A  R  D  I  S  S  T  N  V
121 acagatttaactgtatcaccgtctaagatagaagatggtggtaaaacgacagtaaaaatg
   T  D  L  T  V  S  P  S  K  I  E  D  G  G  K  T  T  V  K  M
181 acgttcgacgataaaatggaaaatacaaatggtgacatgattaagtggcatggccg
   T  F  D  D  K  N  G  K  I  Q  N  G  D  M  I  K  V  A  W  P
241 acaagcggtacagtaagatagagggttatagtaaaacagtaccattaactgttaaaggt
   T  S  G  T  V  K  I  E  G  Y  S  K  T  V  P  L  T  V  K  G
301 gaacaggtggtcaagcagttattacaccagcggtgaacaattacattcaatgataaa
   E  Q  V  G  Q  A  V  I  T  P  D  G  A  T  I  T  F  N  D  K
361 gtagaaaaattaagtgatgtttcgggatttcgagaatttgagtacaaggaagaaattta
   V  E  K  L  S  D  V  S  G  F  A  E  F  E  V  Q  G  R  N  L
421 acgcaacaaatacttcagatgacaaagtagctacgataacatctgggaataaatcaacg
   T  Q  T  N  T  S  D  D  K  V  A  T  I  T  S  G  N  K  S  T
481 aatgttacggttcataaaagtgaagcgggaacaagtagtgttttctattataaaacggga
   N  V  T  V  H  K  S  E  A  G  T  S  S  V  F  Y  Y  K  T  G
541 gatatgctaccagaagatacgacacatgtacgatggtttttaaatattaacaatgaaaaa
   D  M  L  P  E  D  T  T  H  V  R  W  F  L  N  I  N  N  E  K
601 agttatgtatcgaaagatattactataaaggatcagattcaaggtggacagcagttagat
   S  Y  V  S  K  D  I  T  I  K  D  Q  I  Q  G  G  Q  Q  L  D
661 ttaagcacattaaacattaatgtgacaggtacacatagcaattattatagtggacaaagt
   L  S  T  L  N  I  N  V  T  G  T  H  S  N  Y  Y  S  G  Q  S
721 gcaattactgattttgaaaaagctttccaggttctaaaataactgttgataatacgaag
   A  I  T  D  F  E  K  A  F  P  G  S  K  I  T  V  D  N  T  K
781 aacacaattgatgtaacaattccacaaggctatgggtcatataatagttttcaattaac
   N  T  I  D  V  T  I  P  Q  G  Y  G  S  Y  N  S  F  S  I  N
841 tacaaaaccaaattacgaatgaacagcaaaaagagtttgttaataattcacaagcttgg
   Y  K  T  K  I  T  N  E  Q  Q  K  E  F  V  N  N  S  Q  A  W
901 tatcaagagcatggtaaggaagaagtgaacgggaaatcatttaatcactgtgcacaat
   Y  Q  E  H  G  K  E  E  V  N  G  K  S  F  N  H  T  V  H  N
961 attaatgctaatgccggtattgaaggtactgtaaaaggtgaattaaaagttttaaacag
   I  N  A  N  A  G  I  E  G  T  V  K  G  E  L  K  V  L  K  Q
1021 gataaagataccaaggcttcagacgtcggcagtggcagcggagatgaggtcgatggatg
   D  K  D  T  K  A  S  D  V  G  S  G  S  G  D  E  V  D  G  M
1081 gtgagcaagggcgaggaggtcatcaaagagttcatgcgcttcaaggtgcgcatggagggc
   V  S  K  G  E  E  V  I  K  E  F  M  R  F  K  V  R  M  E  G
1141 tccatgaacggccacgagttcgagatcgagggcgagggcgagggccgccctacgagggc
   S  M  N  G  H  E  F  E  I  E  G  E  G  E  G  R  P  Y  E  G
1201 acccagaccgccaagctgaaggtgaccaagggcgggccccctgcccttcgcctgggacatc
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T Q T A K L K V T K G G P L P F A W D I
1261 ctgtccccccagttcatgtacggctccaaggcgtacgtgaagcaccgcccgcacatcccc
L S P Q F M Y G S K A Y V K H P A D I P
1321 gattacaagaagctgtccttccccgagggcttcaagtgggagcgcgtgatgaacttcgag
D Y K K L S F P E G F K W E R V M N F E
1381 gacggcgggtctggtgaccgtgaccaggactcctccctgcaggacggcacgctgatctac
D G G L V T V T Q D S S L Q D G T L I Y
1441 aagggtgaagatgcgcggcaccaacttccccccgacggccccgtaatgcagaagaagacc
K V K M R G T N F P P D G P V M Q K K T
1501 atgggctgggaggcctccaccgagcgcctgtacccccgcgacggcgtgctgaaggcgag
M G W E A S T E R L Y P R D G V L K G E
1561 atccaccaggccctgaagctgaaggacggcgccactacctggtggagttcaagaccatc
I H Q A L K L K D G G H Y L V E F K T I
1621 tacatggccaagaagcccgtgcaactgcccggtactactacgtggacaccaagctggac
Y M A K K P V Q L P G Y Y Y V D T K L D
1681 atcacctcccacaacgaggactacaccatcgtggaacagtacgagcgtccgagggccgc
I T S H N E D Y T I V E Q Y E R S E G R
1741 caccacctgttctgtgggcatggcaccggcagcaccggcagcggcagctccggcaccgcc
H H L F L G H G T G S T G S G S S G T A
1801 tcctccgaggacaacaacatggccgtcatcaaagagttcatgcgcttcaagggtgcgcatg
S S E D N N M A V I K E F M R F K V R M
1861 gagggctccatgaacggccacgagttcgagatcgagggcgagggcgagggccgcccctac
E G S M N G H E F E I E G E G E G R P Y
1921 gagggcacccagaccgccaagctgaagggtgaccaagggcgggccccctgcccttcgcctgg
E G T Q T A K L K V T K G G P L P F A W
1981 gacatcctgtccccccagttcatgtacggctccaaggcgtacgtgaagcaccgcccgcac
D I L S P Q F M Y G S K A Y V K H P A D
2041 atccccgattacaagaagctgtccttccccgagggcttcaagtgggagcgcgtgatgaac
I P D Y K K L S F P E G F K W E R V M N
2101 ttcgaggacggcgggtctggtgaccgtgaccaggactcctccctgcaggacggcacgctg
F E D G G L V T V T Q D S S L Q D G T L
2161 atctacaagggtgaagatgcgcggcaccaacttccccccgacggccccgtaatgcagaag
I Y K V K M R G T N F P P D G P V M Q K
2221 aagaccatgggctgggaggcctccaccgagcgcctgtacccccgcgacggcgtgctgaag
K T M G W E A S T E R L Y P R D G V L K
2281 ggcgagatccaccaggccctgaagctgaaggacggcgccactacctggtggagttcaag
G E I H Q A L K L K D G G H Y L V E F K
2341 accatctacatggccaagaagcccgtgcaactgcccggtactactacgtggacaccaag
T I Y M A K K P V Q L P G Y Y Y V D T K
2401 ctggacatcacctcccacaacgaggactacaccatcgtggaacagtacgagcgtccgag
L D I T S H N E D Y T I V E Q Y E R S E
2461 ggccgcccaccacctgttctgtacggcatggacgagctgtacaagtaacgatctcgag
G R H H L F L Y G M D E L Y K -