

Figure S5. Nucleotide sequence of bacterial expression vector pET28a-tdTomato-CNA35

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1  atgggcagcagccatcatcatcatcatcagcagcggcctgggtgccgcgcgggcagccat
   M  G  S  S  H  H  H  H  H  H  S  S  G  L  V  P  R  G  S  H
61  atggctagcgaggtcgatggtatggtgagcaagggcgaggaggtcatcaaagagttcatg
   M  A  S  E  V  D  G  M  V  S  K  G  E  E  V  I  K  E  F  M
121  cgcttcaaggtgcgcatggagggctccatgaacggccacgagttcgagatcgagggcgag
   R  F  K  V  R  M  E  G  S  M  N  G  H  E  F  E  I  E  G  E
181  ggcgagggccgccctacgagggcaccagaccgccaagctgaaggtgaccaagggcggc
   G  E  G  R  P  Y  E  G  T  Q  T  A  K  L  K  V  T  K  G  G
241  cccctgcccttcgcctgggacatcctgtccccccagttcatgtacggctccaaggcgtac
   P  L  P  F  A  W  D  I  L  S  P  Q  F  M  Y  G  S  K  A  Y
301  gtgaagcaccccgccgacatccccgattacaagaagctgtccttccccgagggcttcaag
   V  K  H  P  A  D  I  P  D  Y  K  K  L  S  F  P  E  G  F  K
361  tgggagcgcgtgatgaacttcgaggacggcgggtctggtgaccgtgaccaggactcctcc
   W  E  R  V  M  N  F  E  D  G  G  L  V  T  V  T  Q  D  S  S
421  ctgcaggacggcacgctgatctacaaggtgaagatgcgcggcaccaacttccccccgac
   L  Q  D  G  T  L  I  Y  K  V  K  M  R  G  T  N  F  P  P  D
481  ggccccgtaatgcagaagaagaccatgggctgggaggcctccaccgagcgcctgtacccc
   G  P  V  M  Q  K  K  T  M  G  W  E  A  S  T  E  R  L  Y  P
541  cgcgacggcgtgctgaagggcgagatccaccaggccctgaagctgaaggacggcggccac
   R  D  G  V  L  K  G  E  I  H  Q  A  L  K  L  K  D  G  G  H
601  tacctggtggagttcaagaccatctacatggccaagaagcccgtgcaactgcccggtac
   Y  L  V  E  F  K  T  I  Y  M  A  K  K  P  V  Q  L  P  G  Y
661  tactacgtggacaccaagctggacatcacctcccacaacgaggactacaccatcgtggaa
   Y  Y  V  D  T  K  L  D  I  T  S  H  N  E  D  Y  T  I  V  E
721  cagtacgagcgtccgagggccgcccaccacctgttcctggggcatggcaccgggcagcacc
   Q  Y  E  R  S  E  G  R  H  H  L  F  L  G  H  G  T  G  S  T
781  ggcagcggcagctccggcaccgcctcctccgaggacaacaacatggccgtcatcaaagag
   G  S  G  S  S  G  T  A  S  S  E  D  N  N  M  A  V  I  K  E
841  ttcatgcgcttcaaggtgcgcacatggagggctccatgaacggccacgagttcgagatcgag
   F  M  R  F  K  V  R  M  E  G  S  M  N  G  H  E  F  E  I  E
901  ggcgagggcgagggccgcccctacgagggcaccagaccgccaagctgaaggtgaccaag
   G  E  G  E  G  R  P  Y  E  G  T  Q  T  A  K  L  K  V  T  K
961  ggcggcccccctgcccttcgcctgggacatcctgtccccccagttcatgtacggctccaag
   G  G  P  L  P  F  A  W  D  I  L  S  P  Q  F  M  Y  G  S  K
1021  gcgtacgtgaagcaccccgccgacatccccgattacaagaagctgtccttccccgagggc
   A  Y  V  K  H  P  A  D  I  P  D  Y  K  K  L  S  F  P  E  G
1081  ttcaagtgggagcgcgtgatgaacttcgaggacggcgggtctggtgaccgtgaccaggac
   F  K  W  E  R  V  M  N  F  E  D  G  G  L  V  T  V  T  Q  D
1141  tcctccctgcaggacggcacgctgatctacaaggtgaagatgcgcggcaccaacttcccc
   S  S  L  Q  D  G  T  L  I  Y  K  V  K  M  R  G  T  N  F  P
1201  cccgcaggccccgtaatgcagaagaagaccatgggctgggaggcctccaccgagcgcctg
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P D G P V M Q K K T M G W E A S T E R L
 1261 taccctccgcgacggcgtgctgaagggcgagatccaccaggccctgaagctgaaggacggc
 Y P R D G V L K G E I H Q A L K L K D G
 1321 ggccactacctggtggagttcaagaccatctacatggccaagaagcccgtgcaactgcc
 G H Y L V E F K T I Y M A K K P V Q L P
 1381 ggctactactacgtggacaccaagctggacatcacctcccacaacgaggactacaccatc
 G Y Y Y V D T K L D I T S H N E D Y T I
 1441 gtggaacagtacgagcgtccgagggccgcccaccacctgttcctgtacggcatggacgag
 V E Q Y E R S E G R H H L F L Y G M D E
 1501 ctgtacaaggaattccacggatccgcacgagatatttcacgaatgttacagattta
 L Y K E F H G S A R D I S S T N V T D L
 1561 actgtatcacctgctaagatagaagatggtggtaaaacgacagtaaaatgacgttcgac
 T V S P S K I E D G G K T T V K M T F D
 1621 gataaaaatggaaaaatacaaaatggtgacatgattaaagtggcatggccgacaagcgg
 D K N G K I Q N G D M I K V A W P T S G
 1681 acagtaaagatagaggggttatagtaaaacagtaccattaactgttaaagggtgaacagg
 T V K I E G Y S K T V P L T V K G E Q V
 1741 ggtcaagcagttattacaccagacgggtgcaacaattacattcaatgataaagtagaaaa
 G Q A V I T P D G A T I T F N D K V E K
 1801 ttaagtgatgtttcgggatttgcagaatttgaagtacaaggaagaaatttaacgcaaaca
 L S D V S G F A E F E V Q G R N L T Q T
 1861 aatacttcagatgacaaagtagctacgataacatctgggaataaatcaacgaatgttacg
 N T S D D K V A T I T S G N K S T N V T
 1921 gttcataaaaagtgaagcgggaacaagtagtggttttctattataaaaacgggagatatgcta
 V H K S E A G T S S V F Y Y K T G D M L
 1981 ccagaagatacgacacatgtacgatggttttttaataattaacaatgaaaaaagttagta
 P E D T T H V R W F L N I N N E K S Y V
 2041 tcgaaagatattactataaaggatcagattcaaggtggacagcagttagatttaagcaca
 S K D I T I K D Q I Q G G Q Q L D L S T
 2101 ttaaacattaatgtgacaggtacacatagcaattattatagtggaacaaagtgaattact
 L N I N V T G T H S N Y Y S G Q S A I T
 2161 gattttgaaaaagcctttccaggttctaaaataactgttgataatacgaagaacacaatt
 D F E K A F P G S K I T V D N T K N T I
 2221 gatgtaacaattccacaaggctatgggtcatataatagtttttcaattaactacaaaacc
 D V T I P Q G Y G S Y N S F S I N Y K T
 2281 aaaattacgaatgaacagcaaaaagagtttgtaataattcacaagcttggtatcaagag
 K I T N E Q Q K E F V N N S Q A W Y Q E
 2341 catggtgaaggaagaagtgaacgggaaatcatttaatcatactgtgcacaatattaatgct
 H G K E E V N G K S F N H T V H N I N A
 2401 aatgccggtattgaaggtactgtaaaagggtgaattaaaagtttttaaacaggataaagat
 N A G I E G T V K G E L K V L K Q D K D
 2461 accaaggcttcagacgtcctgtaaggcattgctcgag
 T K A S D V L -