

Figure S12. Nucleotide sequence of bacterial expression vector pET28a-CNA35-mCherry

```
1  atgggcagcagccatcatcatcatcatcagcagcggcctgggtgccgcgcgggcagccat
   M  G  S  S  H  H  H  H  H  H  S  S  G  L  V  P  R  G  S  H
61  atggctagctcaggtgcagaattccacggatccgcacgagatatttcatcaacgaatgtt
   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 acgttcgacgataaaaatggaaaaatacaaaatggtgacatgattaaagtggcatggccg
   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 gaacaggtggtcaagcagttattacaccagcggtgcaacaattacattcaatgataaa
   E  Q  V  G  Q  A  V  I  T  P  D  G  A  T  I  T  F  N  D  K
361 gtagaaaaattaagtgatgtttcgggatttcgagaatttgaagtacaaggaagaaattta
   V  E  K  L  S  D  V  S  G  F  A  E  F  E  V  Q  G  R  N  L
421 acgcaaacaatacttcagatgacaaagtagctacgataacatctgggaataaatcaacg
   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 gatatgctaccagaagatacgcacatgtacgatggtttttaataattaacaatgaaaaa
   D  M  L  P  E  D  T  T  H  V  R  W  F  L  N  I  N  N  E  K
601 agttatgtatcgaaagatatactataaaggatcagattcaaggtggacagcagttagat
   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 gcaattactgttttgaaaaagctttccaggttctaaataactgttgataatacgaag
   A  I  T  D  F  E  K  A  F  P  G  S  K  I  T  V  D  N  T  K
781 aacacaattgatgtaacaattccacaaggctatgggtcatataagtttttcaattaac
   N  T  I  D  V  T  I  P  Q  G  Y  G  S  Y  N  S  F  S  I  N
841 tacaaaaccaaattacgaatgaacagcaaaaagtttgttaataattcacaagcttgg
   Y  K  T  K  I  T  N  E  Q  Q  K  E  F  V  N  N  S  Q  A  W
901 tatcaagagcatggtaaggaagagtgaacgggaaatcatttaatactactgtgcacaat
   Y  Q  E  H  G  K  E  E  V  N  G  K  S  F  N  H  T  V  H  N
961 attaatgctaatgccgtattgaaggtactgtaaaaggtgaattaaaagttttaaaacag
   I  N  A  N  A  G  I  E  G  T  V  K  G  E  L  K  V  L  K  Q
1021 gataaagataccaaggcttcagacgtcatggtttctaagggcgaagaggacaatatggct
   D  K  D  T  K  A  S  D  V  M  V  S  K  G  E  E  D  N  M  A
1081 atcatcaaagagttcatgcgttttaaagtacacatggaaggctccgttaacggtcacgag
   I  I  K  E  F  M  R  F  K  V  H  M  E  G  S  V  N  G  H  E
1141 tttgaaattgaaggtgagggcgaaggtcgccgtacgaaggcactcaaacggcgaagctg
   F  E  I  E  G  E  G  E  G  R  P  Y  E  G  T  Q  T  A  K  L
1201 aaagtgaccaaaggtggcccactgccgttcgttgggacattctgtccccgcaattcatg
```

K V T K G G P L P F A W D I L S P Q F M
1261 tatgggttctaaagcgtacgtgaaacacccggcggaatttccggattacctgaaactgtct
Y G S K A Y V K H P A D I P D Y L K L S
1321 ttcccggaagggtttcaaattgggaacgtgttatgaacttcgaagacgggtggtgttgtaacg
F P E G F K W E R V M N F E D G G V V T
1381 gttactcaggactctagcctgcaggacggcgaatttatctataaagtaaaactgcgtggt
V T Q D S S L Q D G E F I Y K V K L R G
1441 actaacttcccgtctgatggcccgggttatgcaaaagaaaactatggggtgggaagcttct
T N F P S D G P V M Q K K T M G W E A S
1501 agcgaacgcatgtacccggaggacgggtgccctgaaaggatgaaatcaaacaacgcctgaaa
S E R M Y P E D G A L K G E I K Q R L K
1561 ctgaaggacggcggccactacgatgcggaagtgaaaaccacgtacaaagcgaagaaacca
L K D G G H Y D A E V K T T Y K A K K P
1621 gtacagctgcctgggtgcctacaatgtgaatatcaaactggatattacctcccataacgaa
V Q L P G A Y N V N I K L D I T S H N E
1681 gactataccatcgtcgaacagtatgaacgtgctgaaggatcgccatagcaccgggtggcatg
D Y T I V E Q Y E R A E G R H S T G G M
1741 gatgagttatacaagtaatatctcgag
D E L Y K -