

Resource Summary Report

Generated by [dkNET](#) on Aug 25, 2026

C321

RRID:Addgene_48999

Type: Plasmid

Proper Citation

RRID:Addgene_48999

Plasmid Information

URL: <http://www.addgene.org/48999>

Proper Citation: RRID:Addgene_48999

Insert Name: Recoded E. coli genome with all instances of the UAG codon removed, but wild type UAG termination function is not changed

Organism: E. coli

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:24136966](#)

Vector Backbone Description: Vector Backbone:E. coli genome; Vector Types:Bacterial Expression; Bacterial Resistance:Ampicillin

Comments: E. coli MG1655 delta(ybhB-bioAB)::[lcl857 N(cro-ea59)::tetR-bla] Delta mutS::zeoR; all 321 UAG codons changed to UAA This strain is mutS-, which causes a spontaneous mutation frequency of ~2E-8. This strain is auxotrophic for d-biotin. Sequence is similar to C321.DA (NCBI accession # NCBI CP006698), except that RF1 is not deleted.

Plasmid Name: C321

Relevant Mutation: See genbank file of C321.DA

Record Creation Time: 20220422T222252+0000

Record Last Update: 20260815T081555+0000

Ratings and Alerts

No rating or validation information has been found for C321.

No alerts have been found for C321.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 3 mentions in open access literature.

Listed below are recent publications. The full list is available at [dkNET](#) .

Chen X, et al. (2021) A linear DNA template-based framework for site-specific unnatural amino acid incorporation. *Synthetic and systems biotechnology*, 6(3), 192.

Ozer E, et al. (2017) In vitro suppression of two different stop codons. *Biotechnology and bioengineering*, 114(5), 1065.

Ostrov N, et al. (2016) Design, synthesis, and testing toward a 57-codon genome. *Science* (New York, N.Y.), 353(6301), 819.