

# Resource Summary Report

Generated by [RRID](#) on Aug 19, 2026

## C321

RRID:Addgene\_48999

Type: Plasmid

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### Proper Citation

RRID:Addgene\_48999

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### 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

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### Ratings and Alerts

No rating or validation information has been found for C321.

No alerts have been found for C321.

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## Data and Source Information

**Source:** [Addgene](#)

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## Usage and Citation Metrics

We found 3 mentions in open access literature.

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

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.