

Resource Summary Report

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

BL21(DE3) ?serC

RRID:Addgene_197656

Type: Plasmid

Proper Citation

RRID:Addgene_197656

Plasmid Information

URL: <http://www.addgene.org/197656>

Proper Citation: RRID:Addgene_197656

Insert Name: This strain is a derivative of BL21(DE3) with the serC gene knocked out

Organism: n/a

Bacterial Resistance: None

Defining Citation: [PMID:37122473](#)

Vector Backbone Description: Vector Backbone:n/a; Vector Types:This is a strain, not a plasmid; Bacterial Resistance:None

Comments: Strain is resistant to chloramphenicol. Derivative of BL21(DE3) with the serC gene knocked out. This strain is used for expressing proteins containing site-specific non-hydrolyzable phosphoserine. Primers for verification: - for serC deletion:

CCTCAACGGTTTTACTCATTGCGATG, CGGGCAGATTAATAGTGCCATCGAC

Additional reference: Rogerson et al. Efficient genetic encoding of phosphoserine and its nonhydrolyzable analog. Nat Chem Biol. 2015 Jul;11(7):496-503 Please visit <https://www.biorxiv.org/content/10.1101/2021.10.22.465468v2> for bioRxiv preprint.

Plasmid Name: BL21(DE3) ?serC

Record Creation Time: 20230428T080610+0000

Record Last Update: 20260815T082615+0000

Ratings and Alerts

No rating or validation information has been found for BL21(DE3) ?serC.

No alerts have been found for BL21(DE3) ?serC.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 1 mentions in open access literature.

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

Zhu P, et al. (2023) Biosynthesis and Genetic Encoding of Non-hydrolyzable Phosphoserine into Recombinant Proteins in Escherichia coli. Bio-protocol, 13(21), e4861.