

Resource Summary Report

Generated by [PRECISE-TBI](#) on Aug 9, 2026

[BL21?serB](#)

RRID:Addgene_34929

Type: Plasmid

Proper Citation

RRID:Addgene_34929

Plasmid Information

URL: <http://www.addgene.org/34929>

Proper Citation: RRID:Addgene_34929

Bacterial Resistance: None

Defining Citation: [PMID:21868676](#)

Vector Backbone Description: Vector Backbone:None; Vector Types:; Bacterial Resistance:None

Comments: To prevent possible enzymatic dephosphorylation of O-phospho-L-serine (Sep) in vivo, the gene encoding phosphoserine phosphatase (serB), which catalyzes the last step in serine biosynthesis, was deleted from Escherichia coli strain BL21. Markerless gene deletions were carried out using a λ -red and FLP recombinase-based gene knockout strategy.

Plasmid Name: BL21?serB

Record Creation Time: 20220422T222148+0000

Record Last Update: 20260808T081550+0000

Ratings and Alerts

No rating or validation information has been found for BL21?serB.

No alerts have been found for BL21?serB.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 5 mentions in open access literature.

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

Vesely CH, et al. (2022) Accessing isotopically labeled proteins containing genetically encoded phosphoserine for NMR with optimized expression conditions. The Journal of biological chemistry, 298(12), 102613.

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.

Palani S, et al. (2020) Phosphoregulation of tropomyosin-actin interaction revealed using a genetic code expansion strategy. Wellcome open research, 5, 161.

Soupene E, et al. (2019) ACBD6 protein controls acyl chain availability and specificity of the N-myristoylation modification of proteins. Journal of lipid research, 60(3), 624.

Rogerson DT, et al. (2015) Efficient genetic encoding of phosphoserine and its nonhydrolyzable analog. Nature chemical biology, 11(7), 496.