

Resource Summary Report

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

pET22b_PstS_2

RRID:Addgene_78199

Type: Plasmid

Proper Citation

RRID:Addgene_78199

Plasmid Information

URL: <http://www.addgene.org/78199>

Proper Citation: RRID:Addgene_78199

Insert Name: pstS (A17C,A197C)

Organism: E. coli

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:26199994](#)

Vector Backbone Description: Vector Backbone:pET22b; Vector Types:Bacterial Expression; Bacterial Resistance:Ampicillin

Comments: Please note- The numbering system used was for the mature natural wild-type PstS protein. The plasmid produces an extra N-terminal methionine so all mutations will be off by 1nt (e.g., A197C =A198C) The expressed protein is a double-cysteine variant of E. coli phosphate binding protein. The gene encodes the mature protein without the N-terminal signal peptide, but with an N-terminal methionine, for subsequent labeling at the cysteines with two 6-iodoacetamidotetramethylrhodamines per molecule. This adduct is then used as a fluorescent phosphate biosensor, having 10-15-fold fluorescence increase on binding inorganic phosphate with very high affinity.

Plasmid Name: pET22b_PstS_2

Relevant Mutation: A17C; A197C (please see depositor comment below)

Record Creation Time: 20220422T222515+0000

Record Last Update: 20260815T082022+0000

Ratings and Alerts

No rating or validation information has been found for pET22b_PstS_2.

No alerts have been found for pET22b_PstS_2.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.