

Resource Summary Report

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pET22b_PfSSB_W166C

RRID:Addgene_103001

Type: Plasmid

Proper Citation

RRID:Addgene_103001

Plasmid Information

URL: <http://www.addgene.org/103001>

Proper Citation: RRID:Addgene_103001

Insert Name: PfSSB_W166C

Organism: Plasmodium falciparum

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:29466468](#)

Vector Backbone Description: Vector Backbone:pET22B; Vector Types:Bacterial Expression; Bacterial Resistance:Ampicillin

Comments: Usage: The expressed protein is a Plasmodium falciparum single-stranded DNA-binding protein, PfSSB, with two point mutations, C93A and W166C, for subsequent labeling at the 166 cysteine with one IDCC (N-[2-(iodoacetamido)ethyl]-7-diethylaminocoumarin-3-carboxamide) or Cy3B per subunit. PfSSB was expressed without the N-terminal apicoplast localisation sequence (76 amino acids) but amino acids are numbered for the full-length protein, that is the first amino acid in the expressed protein is M77.W166C is the equivalent position to W88 in E. coli SSB, which was labeled with Cy3B for single molecule measurements of DNA unwinding using TIRF (Fili, N.; Mashanov, G.; Toseland, C. P.; Batters, C.; Wallace, M. I.; Yeeles, J. T. P.; Dillingham, M. S.; Webb, M. R.; Molloy, J. E., Visualizing DNA unwinding by helicases at the single molecule level. Nucleic Acids Res. 2010, 38, 4448-4457.) Protocol: See Hedgethorpe and Webb (2012), which is also followed for PfSSB purification, except with the omission of the PEI precipitation step. Hedgethorpe, K.; Webb, M. R., Fluorescent SSB as a reagentless biosensor for single-stranded DNA. Methods Mol. Biol. 2012, 922, 219-233.

Plasmid Name: pET22b_PfSSB_W166C

Relevant Mutation: C93A, W166C

Record Creation Time: 20220422T221458+0000

Record Last Update: 20260808T080320+0000

Ratings and Alerts

No rating or validation information has been found for pET22b_PfSSB_W166C.

No alerts have been found for pET22b_PfSSB_W166C.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.