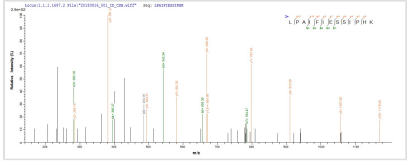
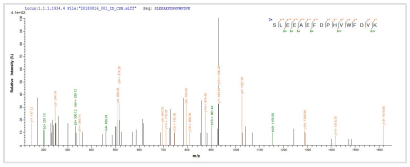
Recombinant Treponema pallidum Periplasmic zinc-binding protein troA (troA)

Product Code	CSB-EP309098TPR
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P96116
Product Type	Recombinant Protein
Immunogen Species	Treponema pallidum (strain Nichols)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	FGSKDAAADGKPLVVTTIGMIADAVKNIAQGDVHLKGLMGPGVDPHLYTATAG DVEWLGNADLILYNGLHLETKMGEVFSKLRGSRLVVAVSETIPVSQRLSLEEAE FDPHVWFDVKLWSYSVKAVYESLCKLLPGKTREFTQRYQAYQQQLDKLDAYV RRKAQSLPAERRVLVTAHDAFGYFSRAYGFEVKGLQGVSTASEASAHDMQEL AAFIAQRKLPAIFIESSIPHKNVEALRDAVQARGHVVQIGGELFSDAMGDAGTS EGTYVGMVTHNIDTIVAALAR
Lead Time	3-7 business days
Research Area	Signal Transduction
Source	E.coli
Gene Names	troA
Protein Names	Recommended name: Periplasmic zinc-binding protein troA Alternative name(s): Tromp-1
Expression Region	23-308aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	38.2 kDa
Protein Description	Full Length of Mature Protein
Image	 Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP309098TPR could indicate that this peptide derived from E.coli-expressed Treponema pallidum (strain Nichols) troA.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP309098TPR could indicate that this peptide derived from E.coli-expressed Treponema pallidum (strain Nichols) troA.

Description

The expression region of this recombinant Treponema pallidum (strain Nichols) troA covers amino acids 23-308. The theoretical molecular weight of the troA protein is 38.2 kDa. This protein is generated in a e.coli-based system. The N-terminal 10xHis tag and C-terminal Myc tag was smoothly integrated into the coding gene of troA, which enables a simple process of detecting and purifying the troA recombinant protein in the following steps.

The Treponema pallidum periplasmic zinc-binding protein TroA is a crucial component in the transport and utilization of zinc in the bacterium. As a periplasmic binding protein, TroA plays a role in binding and transporting zinc ions across the bacterial inner membrane. Zinc is an essential cofactor for various cellular processes, and its uptake is tightly regulated in bacteria. TroA is involved in the scavenging of environmental zinc, contributing to the bacterial cell's ability to adapt to varying zinc concentrations. Understanding the function of TroA in Treponema pallidum is crucial for unraveling the mechanisms of zinc homeostasis and the overall survival strategies employed by this pathogenic bacterium.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.