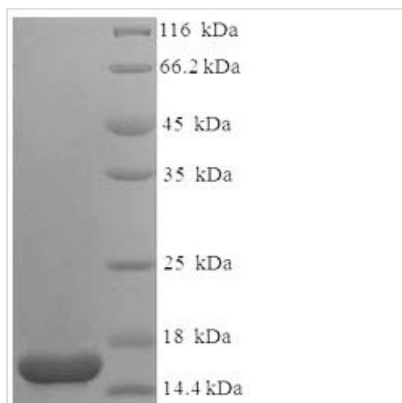




Recombinant Escherichia coli Heat-labile enterotoxin B chain (eltB)

Product Code	CSB-EP315643ENL
Relevance	The biological activity of the toxin is produced by the A chain, which activates intracellular adenyl cyclase.
Abbreviation	Recombinant E.coli eltB protein
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.	P0CK94
Alias	LT-B, human;LTH-B
Product Type	Recombinant Protein
Immunogen Species	Escherichia coli
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	APQSITELCSEYHNTQIYTINDKILSYTESMAGKREMVIITFKSGATFQVEVPGS QHIDSQKKAIERMKDTLRITYLTETKIDKLCVWNNKTPNSIAAISMEN
Research Area	Others
Source	E.coli
Target Names	eltB
Protein Names	LT-B, human;LTH-B
Expression Region	22-124aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged and C-terminal 6xHis-tagged
Mol. Weight	17 kDa
Protein Length	Full Length of Mature Protein

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The expression region of this recombinant *Escherichia coli* eltB covers amino acids 22-124. This eltB protein is expected to have a theoretical molecular weight of 17 kDa. This eltB protein is produced using *e.coli* expression system. The N-terminal 6xHis tag and C-terminal 6xHis tag was smoothly integrated into the coding gene of eltB, which enables a simple process of detecting and purifying the eltB recombinant protein in the following steps.

The *Escherichia coli* heat-labile enterotoxin B chain (EltB) is a component of the heat-labile enterotoxin (LT) produced by certain strains of *E. coli*. LT is a major virulence factor associated with enterotoxigenic *E. coli* (ETEC), a pathotype known for causing traveler's diarrhea and infantile diarrhea in developing countries. EltB forms a heterohexameric complex with the A subunit (EltA), and together, they constitute the biologically active toxin. EltB is responsible for binding to host cell surface receptors, facilitating the internalization of the toxin into the intestinal epithelial cells. Once inside the cells, the A subunit exerts its toxic effects, leading to an increase in intracellular cyclic AMP (cAMP) levels, which disrupts ion transport and water balance, resulting in diarrhea. Understanding the structure and function of EltB is crucial for developing strategies to prevent ETEC infections.

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.

Shelf Life

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.