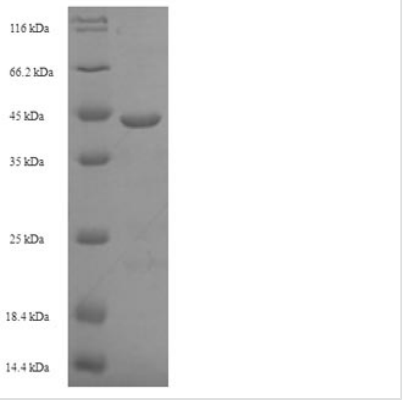
Recombinant Escherichia coli Signal peptidase I (lepB), partial

Product Code	CSB-EP360447ENV
Relevance	Cleavage of hydrophobic, N-terminal signal or leader sequences from secreted and periplasmic proteins.
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.	P00803
Alias	Leader peptidase I
Product Type	Recombinant Protein
Immunogen Species	Escherichia coli (strain K12)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	RSFIYEPFQIPSGSMMPTLLIGDFILVEKFAYGIKDPIYQKTLIETGHPKRGDIVVF KYPEDPKLDYIKRAVGLPGDKVTYDPVSKELTIQPGCSSGQACENALPVTYSN VEPSDFVQTFSRRNGGEATSGFFEVPKNETKENGIRLSERKETLGDVTHRILT VPIAQDQVGMYYQQPGQQLATWIVPPGQYFMMGDNRDNSADSRYWGFVPE ANLVGRATAIWMSFDKQEGEWPTGLRLSRIGGIH
Lead Time	3-7 business days
Research Area	Microbiology
Source	E.coli
Gene Names	lepB
Expression Region	78-324aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	43.7kDa
Protein Description	Partial
Image	



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

Description

Amino acids 78-324 form the expressed segment for recombinant Escherichia coli (strain K12) lepB. The expected molecular weight for the lepB protein is calculated to be 43.7 kDa. This lepB recombinant protein is manufactured in e.coli. The N-terminal 6xHis-SUMO tag was smoothly integrated into the coding gene of lepB, which enables a simple process of detecting and purifying the lepB recombinant protein in the following steps.

Signal peptidase I (LepB) is an enzyme in Escherichia coli that plays a crucial role in protein maturation by cleaving signal peptides from newly synthesized proteins in the bacterial cell. LepB specifically recognizes and cleaves the signal peptides at the conserved signal peptidase cleavage site, releasing the nascent protein into the periplasmic space. This process is essential for the proper localization and functionality of secreted or membrane-bound proteins. Understanding the function of LepB is vital for unraveling the intricacies of bacterial protein secretion and membrane targeting, with potential applications in biotechnology and antibiotic development.

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.