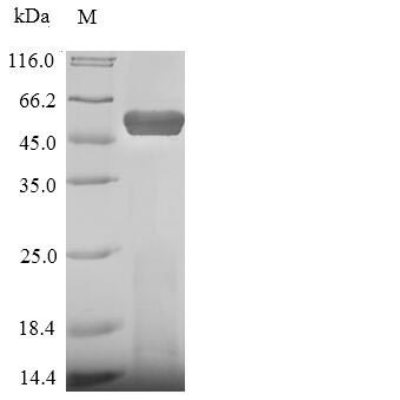
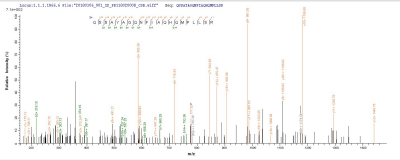
Recombinant Staphylococcus aureus Leukocidin-F subunit (lukF)

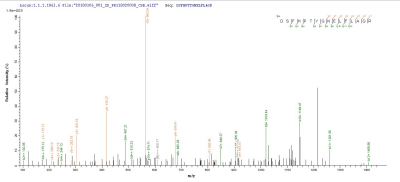
Product Code	CSB-EP330106FKZ
Relevance	Leukocidin causes cytotoxic changes in polymorphonuclear leukocytes. Gamma-hemolysin causes hemolysis in red blood cells.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. 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.	P31715
Alias	Gamma-hemolysin, H-gamma-I subunit
Product Type	Recombinant Protein
Immunogen Species	Staphylococcus aureus
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	AEGKITPVSVKKVDDKVTLYKTTATADSDKFKISQILTFNFIKDKSYDKDTLVLKA TGNINSGFVKPNPNDYDFSKLYWGAKYNVSISSQSNDSVNAVDYAPKNQNEE FQVQNTLGYTFGGDISISNGLSGGLNGNTAFSETINYKQESYRTLSRNTNYKN VGWGVEAHKIMNGWGPYGRDSFHPTYGNELFLAGRQSSAYAGQNFIAQHQM PLLSRSNFNPEFLSVLSHRQDRAKKSKITVTYQREMDLYQIRWNGFYWAGAN YKNFKTRTFKSTYEIDWENHKVKLLDTKETENNK
Lead Time	3-7 business days
Research Area	others
Source	E.coli
Gene Names	lukF
Protein Names	Recommended name: Leukocidin-F subunit Alternative name(s): Gamma-hemolysin, H-gamma-I subunit
Expression Region	26-323aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	54.0kDa
Protein Description	Full Length of Mature Protein
Image	



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



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP330106FKZ could indicate that this peptide derived from E.coli-expressed Staphylococcus aureus lukF.



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Description

Amino acids 26-323 constitute the expression domain of recombinant Staphylococcus aureus lukF. This lukF protein is expected to have a theoretical molecular weight of 54 kDa. Expression of this lukF protein is conducted in e.coli. The N-terminal 10xHis-SUMO tag and C-terminal Myc tag was smoothly integrated into the coding gene of lukF, which enables a simple process of detecting and purifying the lukF recombinant protein in the following steps.

The Staphylococcus aureus leukocidin-F subunit (lukF) is one of the two subunits that make up the LukF-PV (Panton-Valentine leukocidin), a specific leukocidin associated with severe Staphylococcus aureus infections, including skin and soft tissue infections. The LukF-PV toxin is thought to form pores in the membranes of host immune cells, particularly white blood cells, disrupting their integrity and leading to cell death. This activity aids Staphylococcus aureus in evading the immune system and establishing infection. Understanding the structure and function of LukF, along with other leukocidins, is crucial for developing strategies to combat Staphylococcus aureus infections and addressing the associated pathogenicity.

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.