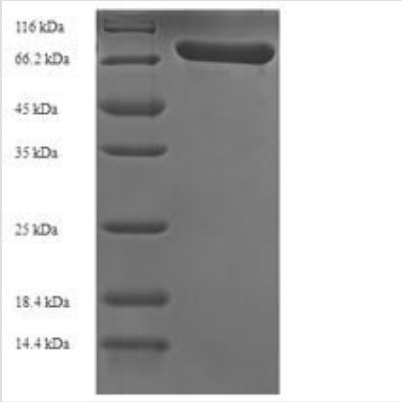
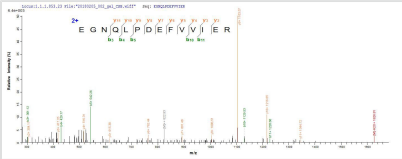
Recombinant Streptococcus pneumoniae serotype 4 Pneumolysin (ply)

Product Code	CSB-EP314690FMW
Relevance	Sulfhydryl-activated toxin that causes cytolysis by forming pores in cholesterol containing host mbranes. After binding to target mbranes, the protein undergoes a major conformation change, leading to its insertion in the host mbrane and formation of an oligomeric pore complex. Cholesterol may be required for binding to host mbranes, mbrane insertion and pore formation. Can be reversibly inactivated by oxidation .
Abbreviation	Recombinant Streptococcus pneumoniae serotype 4 ply 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.	P0C2J9
Alias	Thiol-activated cytolysin
Product Type	Recombinant Protein
Immunogen Species	Streptococcus pneumoniae serotype 4 (strain ATCC BAA-334 / TIGR4)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	ANKAVNDFILAMNYDKKKLLTHQGESIENRFIKEGNQLPDEFVVIERKKRSLST NTSDISVTATNDSRLYPGALLVVDETLLENNPTLLAVDRAPMTYSIDLPGLASS DSFLQVEDPSNSSVRGAVNDLLAKWHQDYGQVNNVPARMQYEKITAHSMEQ LKVKFGSDFEKTGNSLDIDFNSVHSGEKQIQIVNFKQIYYTVSVDAVKNPGDVF QDTVTVEDLKQRGISAERPLVYISSVAYGRQVYLKLETTSKSDEVEAAFEALIK GVKVAPQTEWKQILDNTEVKAVILGGDPSSGARVVTGKVDMVEDLIQEGSRFT ADHPGLPISYTTSFLRDNVVATFQNSTDYVETKVTAYRNGDLLLDHSGAYVAQ YYITWNELSYDHQGKEVLTPKAWDRNGQDLTAHFTTSIPLKGNVRNLSVKIRE CTGLAWEWWRTVYEKTDLPLVRKRTISIWGTTLYPQVEDKVEND
Research Area	Others
Source	E.coli
Target Names	ply
Expression Region	2-471aa
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	68.8kDa
Protein Length	Full Length of Mature Protein

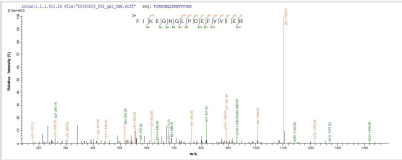
Image



(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-EP314690FMW could indicate that this peptide derived from E.coli-expressed Streptococcus pneumoniae serotype 4 (strain ATCC BAA-334 / TIGR4) ply.



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Description

Recombinant Streptococcus pneumoniae serotype 4 Pneumolysin (ply) is a partial-length protein expressed with an N-terminal 6xHis-SUMO-tagged in the E.coli. Its expression region corresponds to 2-471aa of Streptococcus pneumoniae serotype 4 (strain ATCC BAA-334 / TIGR4) ply protein. This protein underwent validation via the LC-MS/MS analysis. Its purity was determined by SDS-PAGE and reached up to 90% and presented the mass molecule around 66.2 kDa was visualized on the gel. This recombinant ply protein may be used to synthesize antibodies against ply. Ply proteins in-stock are available.
Ply is a sulfhydryl-activated toxin that causes cytolysis by forming pores in cholesterol containing host membranes. Once binding to target membranes, the protein undergoes a major conformation change, leading to its insertion in the host membrane and formation of an oligomeric pore complex.

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.