



Recombinant Streptococcus pneumoniae serotype 2 Pneumolysin (ply)

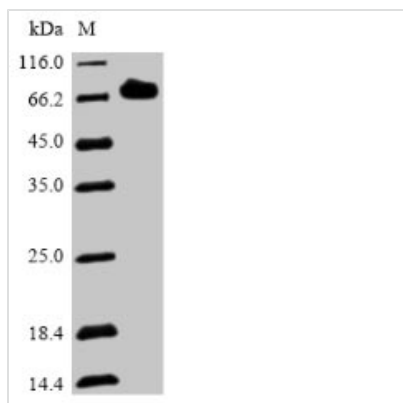
Product Code	CSB-EP312102FNF
Relevance	Sulfhydryl-activated toxin that causes cytolysis by forming pores in cholesterol containing host membranes. After binding to target membranes, the protein undergoes a major conformation change, leading to its insertion in the host membrane and formation of an oligomeric pore complex. Cholesterol may be required for binding to host membranes, membrane insertion and pore formation. Can be reversibly inactivated by oxidation
Abbreviation	Recombinant Streptococcus pneumoniae serotype 2 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.	Q04IN8
Alias	Thiol-activated cytolysin
Product Type	Recombinant Protein
Immunogen Species	Streptococcus pneumoniae serotype 2 (strain D39 / NCTC 7466)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	ANKAVNDFILAMNYDKKKLLTHQGESIENRFIKEGNQLPDEFVVIERKKRSLST NTSDISVTATNDSRLYPGALLVDETLLENNPTLLAVDRAPMTYSIDLPGGLASS DSFLQVEDPSNSSVRGAVNDLLAKWHQDYGQVNNVPARMQYEKITAHSMEQ LKVKFGSDFEKTGNSLDIDFNSVHSGEKQIQIVNFKQIYYTVSVDVKNPGDVF QDTVTVEDLKQRGISAERPLVYISSVAYGRQVYLKLETTSKSDEVEAAFEALIK GVKVAPQTEWKQILDNTEVKAVILGGDPSSGARVVTGKVDMVEDLIQEGSRFT ADHPGLPISYTTTSFLRDNVVFATFQNSTDYVETKVTAYRNGDLLLDHSGAYVAQ YYITWDELSYDHQGKEVLTPKAWDRNGQDLTAHFTTSIPLKGNVRNLSVKIRE CTGLAWWWRTVYEKTDLPLVRKRTISIWGTTLYPQVEDKVEN
Research Area	others
Source	E.coli
Target Names	ply
Protein Names	Recommended name: Pneumolysin Alternative name(s): Thiol-activated cytolysin
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 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	72.8kDa



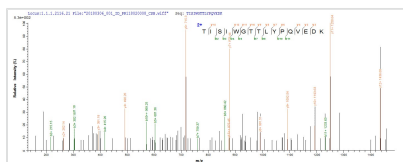
Protein Length

Full Length of Mature Protein

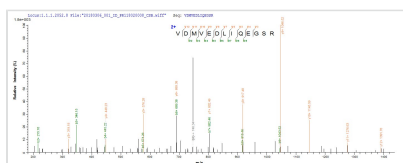
Image



(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-EP312102FNF could indicate that this peptide derived from E.coli-expressed Streptococcus pneumoniae serotype 2 (strain D39 / NCTC 7466) ply.



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Description

The LC-MS/MS Analysis-validated E.coli-expressed Recombinant Streptococcus pneumoniae serotype 2 (strain D39 / NCTC 7466) (ply) protein is the full-length of mature protein with an N-terminal 10xHis-SUMO-tag and a C-terminal Myc-tag. The expression region corresponds to 2-471aa of Streptococcus pneumoniae serotype 2 ply protein. This recombinant ply protein has a molecular weight ranging from 66.2 kDa to 92 kDa and purity greater than 90% as determined by SDS-PAGE.

Pneumolysin (ply) is a toxic protein antigenically related to thiol-activated, cholesterol-binding cytolysins. High levels of ply can lyse all cells with cholesterol-containing membranes. Ply participates in the pathogenesis of lethal pneumococcal pneumonia probably due to its pro-apoptotic and pro-inflammatory activity.

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

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