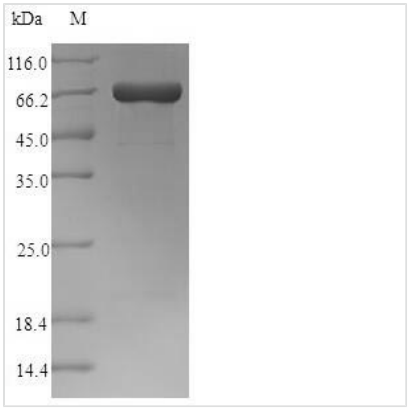
Recombinant Clostridium perfringens Perfringolysin O (pfo)

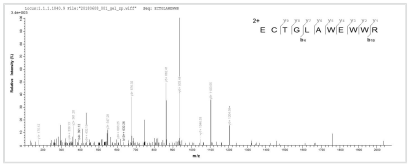
Product Code	CSB-EP314820CMB
Relevance	Sulfhydryl-activated toxin that causes cytolysis by forming pores in cholesterol containing host membranes. After binding to target membranes, the protein assembles into a pre-pore complex. A conformation change leads to insertion in the host membrane and formation of an oligomeric pore complex. Cholesterol may be required for binding to host cell membranes, membrane insertion and pore formation. Can be reversibly inactivated by oxidation.
Abbreviation	Recombinant Clostridium perfringens Perfringolysin O 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.	P0C2E9
Alias	Theta-toxin Thiol-activated cytolysin
Product Type	Recombinant Protein
Immunogen Species	Clostridium perfringens (strain 13 / Type A)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	KDITDKNQSIDSGISSLSYNRNEVLASNGDKIESFVPKEGKKTGNKFIVVERQK RSLTTSPVDISIIDSVNDRTYPGALQLADKAFVENRPTILMVKRKPININIDLPGLK GENSIKVDDPTYGKVSGAIDELVSKWNEKYSSTHTLPARTQYSESMVYSKSQI SSALNVNAKVLENSLGVDFNAVANNEKKVMILAYKQIFYTVSADLPKNPSDLFD DSVTFNDLKQKGVSNEAPPLMVSNVAYGRTIYVKLETTSSSKDVQAAFKALIKN TDIKNSQQYKDIYENSSFTAVVLGGDAQEHNKVVTKDFDEIRKVIKDNATFSTK NPAYPISYTSVFLKDNSVAAVHNKTDYIETTSTEYSKGKINLDHSGAYVAQFEV AWDEVSYDKEGNEVLTHKTWDGNYQDKTAHYSTVIPLEANARNIRIKARECTG LAWEWWRDVISEYDVPLTNNINVSIWGTTLYPGSSITYN
Research Area	Microbiology
Source	E.coli
Target Names	pfo
Protein Names	Recommended name: Perfringolysin O Alternative name(s): Theta-toxin Thiol-activated cytolysin
Expression Region	29-500aa
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	68.7kDa

Protein Length Full Length of Mature Protein

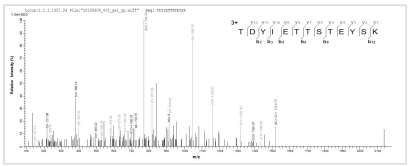
Image



(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-EP314820CMB could indicate that this peptide derived from E.coli-expressed Clostridium perfringens (strain 13 / Type A) pfo.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP314820CMB could indicate that this peptide derived from E.coli-expressed Clostridium perfringens (strain 13 / Type A) pfo.

Description

The E.coli-expressed recombinant Clostridium perfringens (strain 13/Type A) Perfringolysin O (pfo) verified by the LC-MS/MS Analysis is a full-length of mature protein with an N-terminal 6xHis-SUMO-tag. This in-stock recombinant protein harboring 29-500aa of Clostridium perfringens pfo has a high purity (>90%) measured by SDS-PAGE. Its calculated molecular mass is about 68.7 kDa. This pfo protein may be used in the research field of microbiology due to its origin.

Perfringolysin O (pfo), also called θ toxin, is a pore-forming toxin produced by an anaerobic, spore-forming Gram-positive bacterium Clostridium perfringens. Conformational alterations that influence oligomerization and initiate pore formation are triggered throughout pfo upon binding to cholesterol. Together with α toxin, pfo is implicated in the development of gas ganhrene and necrohemorrhagic enterities in calves.

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.