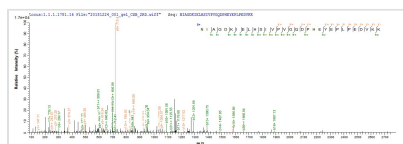




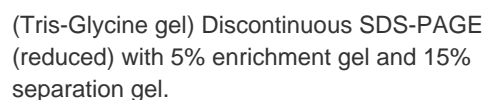
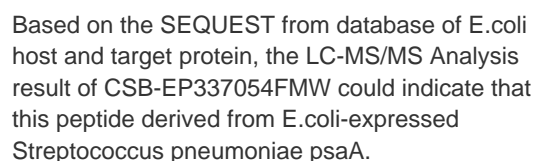
Recombinant Streptococcus pneumoniae Manganese ABC transporter substrate-binding lipoprotein (psaA)

Product Code	CSB-EP337054FMW
Abbreviation	Recombinant Streptococcus pneumoniae psaA 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.	P42363
Storage Buffer	Tris-based buffer,50% glycerol
Product Type	Recombinant Protein
Immunogen Species	Streptococcus pneumoniae
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	CSKGTSSKSSSDKLKVTTNSILADITKNIAGDKIELHSIVPVGQDPHEYEPLPE DVKKTSQADLIFYNGINLETGGNAWFTKLVKANKVENKDYFAASDGVVEVIYLE GQNQAGKEDPHAWLNLENGIYAKNIAKQLIAKDPKNKDFYEKNLAAYTEKLSK LDQEAQAFNNIPAEEKMIVTSEGCFKYFSKAYGVPSAYIWEINTEVEGTPEQI KTLLEKLRQTKVPSLFEVSSVDERPMKTVSKDSNIPIFAKIFTDSIAKEGEEGDS YYSMMKWNLEKIAEGLNK
Research Area	Others
Source	E.coli
Target Names	psaA
Protein Names	Recommended name: Manganese ABC transporter substrate-binding lipoprotein Alternative name(s): Pneumococcal surface adhesin A
Expression Region	21-310aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	39.9 kDa
Protein Length	Full Length of Mature Protein

Image



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP337054FMW could indicate that this peptide derived from E.coli-expressed Streptococcus pneumoniae psaA.



The region for expressing recombinant *Streptococcus pneumoniae* psaA contains amino acids 21-310. The theoretical molecular weight of the psaA protein is 39.9 kDa. This protein is generated in a e.coli-based system. The N-terminal 10xHis tag and C-terminal Myc tag was smoothly integrated into the coding gene of psaA, which enables a simple process of detecting and purifying the psaA recombinant protein in the following steps.

The *Streptococcus pneumoniae* manganese ABC transporter substrate-binding lipoprotein, encoded by the *psaA* gene, is a crucial component of the ABC (ATP-binding cassette) transport system responsible for the acquisition of manganese ions in the bacterium *Streptococcus pneumoniae*. PsaA acts as the substrate-binding component of the ABC transporter, recognizing, binding, and transporting manganese across the bacterial cell membrane. The lipoprotein anchor in PsaA allows it to associate with the bacterial cell membrane. The efficient acquisition of manganese is vital for the survival and virulence of *Streptococcus pneumoniae*, particularly in the host environment where nutrient availability is a critical factor.

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.

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