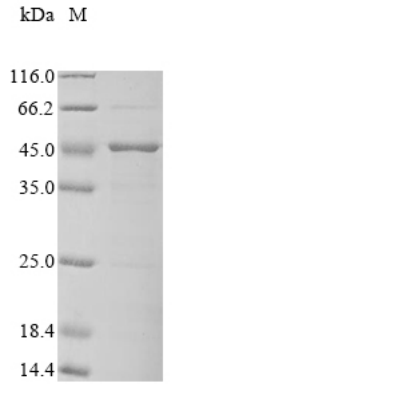
Recombinant Mycobacterium tuberculosis Diacylglycerol acyltransferase/mycolyltransferase Ag85A (fbpA)

Product Code	CSB-EP358584MVZ
Abbreviation	Recombinant Mycobacterium tuberculosis fbpA 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.	P9WQP2
Storage Buffer	Tris-based buffer,50% glycerol
Product Type	Recombinant Proteins
Immunogen Species	Mycobacterium tuberculosis (strain CDC 1551 / Oshkosh)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	FSRPGLPVEYLQVPSPSMGRDIKVQFQSGGANSPALYLLDGLRAQDDFSGWD INTPAFEWYDQSGLSVVMPVGGQSSFYSDWYQPACGKAGCQTYKWETFLTS ELPGWLQANRHVKPTGSAVVGLSMAASSALTLAIYHPQQFVYAGAMSGLLDP SQAMGPTLIGLAMGDAGGYKASDMWGPKEDPAWQRNDPLLNVGKLIANNTR VWVYCGNGKPSDLGGNNLPAKFLEGFVRTSNIKFQDAYNAGGGHNGVFDFP DSGTHSWEYWGAQLNAMKPDLQRALGATPNTGPAPQGA
Research Area	Microbiology
Source	E.coli
Target Names	fbpA
Protein Names	Recommended name: Antigen 85-AAlternative name(s): Antigen 85 complex A Short name= 85A Short name= Ag85A Fibronectin-binding protein A Mycolyl transferase 85A EC= 2.3.1.-
Expression Region	44-338aa
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	44.6 kDa
Protein Length	Full Length of Mature Protein
Image	



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

Description

The region for expressing recombinant Mycobacterium tuberculosis fbpA contains amino acids 44-338. This fbpA protein is expected to have a theoretical molecular weight of 44.6 kDa. This protein is generated in a e.coli-based system. The N-terminal 6xHis-SUMO tag was smoothly integrated into the coding gene of fbpA, which enables a simple process of detecting and purifying the fbpA recombinant protein in the following steps.

The Mycobacterium tuberculosis diacylglycerol acyltransferase/mycolyltransferase Ag85A, encoded by the fbpA gene, is a crucial enzyme involved in the biosynthesis of mycolic acids. Mycolic acids contribute to the unique structure and impermeability of the mycobacterial cell envelope, playing a critical role in the pathogenesis and virulence of Mycobacterium tuberculosis (Mtb), the causative agent of tuberculosis. Ag85A is responsible for transferring mycolic acids to arabinogalactan, forming the mycolyl-arabinogalactan-peptidoglycan complex. This enzymatic activity is vital for the integrity of the mycobacterial cell wall and its ability to evade host immune responses. Understanding the function of Ag85A is essential for developing targeted therapies against tuberculosis and provides valuable insights into the molecular mechanisms underlying Mtb pathogenicity.

Shelf Life

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