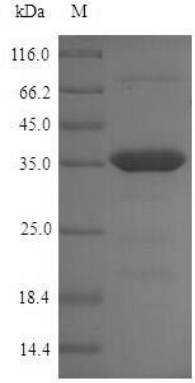
Recombinant Chlamydia trachomatis serovar D Large cysteine-rich periplasmic protein OmcB (omcB), partial

Product Code	CSB-EP315528DSB
Relevance	In elementary bodies (EBs, the infectious stage, which is able to survive outside the host cell) provides the structural integrity of the outer envelope through disulfide cross-links with the small cysteine-rich protein and the major outer membrane protein. It has been described in publications as the Sarkosyl-insoluble COMC (Chlamydia outer membrane complex), and serves as the functional equivalent of peptidoglycan.
Abbreviation	Recombinant Chlamydia trachomatis omcB protein, partial
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.	P0CC04
Product Type	Recombinant Proteins
Immunogen Species	Chlamydia trachomatis (strain D/UW-3/Cx)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	LADTKAKDNTSHKSKKARKNHSKETPVDRKEVAPVHESKATGPKQDSCFGRM YTVKVNDDRNVEITQAVPEYATVGSPYPIEITATGKRDCVDVIITQQLPCEAEFV RSDPATTPTADGKLVWKIDRLGQGEKSKITVWVKPLKEGCCFTAATVCA
Research Area	Microbiology
Source	E.coli
Target Names	omcB
Protein Names	Recommended name: Large cysteine-rich periplasmic protein omcB Short name= Large-CRPAlternative name(s): 60 kDa cysteine-rich OMP 60 kDa outer membrane protein Cysteine-rich outer membrane protein Short name= CRP
Expression Region	41-196aa
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	33.1kDa
Protein Length	Partial
Image	



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

Description

The expression region of this recombinant Chlamydia trachomatis (strain D/UW-3/Cx) omcB covers amino acids 41-196. This omcB protein is expected to have a theoretical molecular weight of 33.1 kDa. The omcB protein was expressed in e.coli. The N-terminal 6xHis-SUMO tag was smoothly integrated into the coding gene of omcB, which enables a simple process of detecting and purifying the omcB recombinant protein in the following steps.

The Chlamydia trachomatis large cysteine-rich periplasmic protein OmcB is a crucial component of the outer membrane complex (OMC) in Chlamydia, a genus of bacteria that are obligate intracellular pathogens. OmcB is characterized by its cysteine-rich structure and is primarily located in the periplasmic space between the bacterial inner and outer membranes. As part of the OMC, OmcB likely plays a role in maintaining the structural integrity of the chlamydial outer membrane and is involved in interactions with the host cell during the infection process. Understanding the function and role of OmcB is essential for unraveling the molecular mechanisms underlying Chlamydia pathogenesis and may contribute to the development of therapeutic strategies against Chlamydia trachomatis infections.

Shelf Life

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