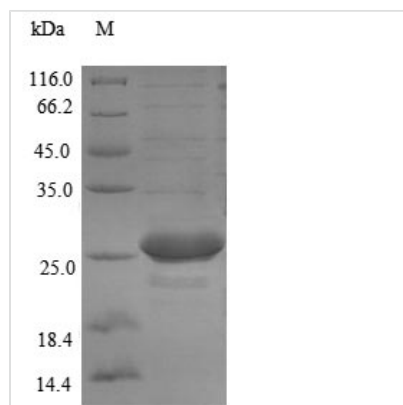




Recombinant Yersinia pseudotuberculosis serotype I Yop proteins translocation protein M (yscM)

Product Code	CSB-EP300275YAH
Relevance	Belongs to an operon involved in the translocation of Yop proteins across the bacterial membranes or in the specific control of this function.
Abbreviation	Recombinant Yersinia pseudotuberculosis serotype I yscM 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.	P69979
Alias	Low calcium response locus protein Q
Product Type	Recombinant Protein
Immunogen Species	Yersinia pseudotuberculosis serotype I (strain IP32953)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MKINTLQSLINQQITQVGHGGQAGRLTETNPLTENSQISTAEKAFANEVLEHV KNTALSRHDIACLLPRVSNLELKQKGAGEVIVTGLRTEQLSLSDAKLLLEAAMR QDTAADG
Research Area	Microbiology
Source	E.coli
Target Names	yscM
Protein Names	Recommended name: Yop proteins translocation protein M Alternative name(s): Low calcium response locus protein Q
Expression Region	1-115aa
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	28.4kDa
Protein Length	Full Length
Image	



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

Description

Recombinant *Y.pseudotuberculosis* serotype I yscM protein is an *E.coli*-expressed Full Length protein. Molecularly, this yscM protein is characterized by N-terminal 6xHis-SUMO tag, internal *Y.pseudotuberculosis* serotype I yscM DNA fragment (1-115aa). Standard methods for recombinant yscM protein expression comprise transfecting cells with DNA vectors that consist of specific templates and then cultures cells to translate and transcribe the yscM protein production process. Typically, these cells are lysed to extract expressed proteins for more purification. The purity of this recombinant yscM protein is 90%+ measured by SDS-PAGE.

yscM, also called LcrQ, is a regulatory protein specific to *Yersinia*. LcrQ acts as an anti-activator that causes feedback inhibition for Ysc-Yop type III secretion system (T3SS) gene expression. LcrQ is secreted outside of cells by the secretory machinery under low calcium conditions at 37 °C with ligation to the chaperone protein SycH, easing the inhibitory effect of LcrQ and leading to the activation of the Ysc-Yop T3SS. LcrQ-SycH interaction also promotes the T3SS of LcrQ to the outside environment, further increasing Yop synthesis and secretion.

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.