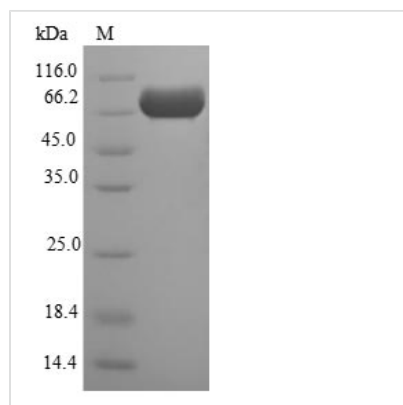




Recombinant Escherichia coli Periplasmic murein peptide-binding protein (mppA)

Product Code	CSB-EP304378ENV
Relevance	Essential for the uptake of the murein peptide L-alanyl-gamma-D-glutamyl-meso-diaminopimelate. Also transports some alpha-linked peptides such as Pro-Phe-Lys with low affinity. The transport is effected by the oligopeptide permease system.
Abbreviation	Recombinant E.coli mppA 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.	P77348
Product Type	Recombinant Protein
Immunogen Species	Escherichia coli (strain K12)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	AEVPSGTVLAEKQELVRHIKDEPASLDPKAVGLPEIQVIRDLFEGLVNQNEKG EIVPGVATQWKSNDNRIWTFTLRDPAKWADGTPVTAQDFVYSWQRLVDPKTL SPFAWFAALAGINNAQAIIIDGKATPDQLGVTAVDAHTLKIQLDKPLPWFVNLT NFAFFPVQKANVESGKEWTKPGNLIGNGAYVLKERVVNEKLVVVPNTHYWDN AKTVLQKVTFPLINQESAATKRYLAGDIDITESFPKNMYQKLLKDIPGQVYTPPQ LGTYYYAFNTQKGPTADQVRRLALSMTIDRRLMTEKVLGTGEKPAWHFTPDV TAGFTPEPSPFEQMSQEELNAQAKTLLSAAGYGPQKPLKLTLLYNTSENHQKI AIAVASMWKKNLGVDVKLQNQEWKTYIDSRNTGNFDVIRASWVG DYNEPSTF LTLTSTHSGNISRFNNPAYDKVLAQASTENTVKARNADYNAAEKILMEQAPIA PIYQYTNGRLIKPWLKGYPINNPEDVAYSRTMYIVKH
Research Area	others
Source	E.coli
Target Names	mppA
Protein Names	Recommended name: Periplasmic murein peptide-binding protein
Expression Region	23-537aa
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	73.6kDa
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 expression region of this recombinant Escherichia coli (strain K12) mppA covers amino acids 23-537. The theoretical molecular weight of the mppA protein is 73.6 kDa. This mppA protein is produced using e.coli expression system. The N-terminal 6xHis-SUMO tag was smoothly integrated into the coding gene of mppA, which enables a simple process of detecting and purifying the mppA recombinant protein in the following steps.

The Escherichia coli periplasmic murein peptide-binding protein, encoded by the mppA gene, is part of the bacterial periplasmic binding protein (PBP) family. MppA is involved in the transport of murein peptides, which are components of peptidoglycan, the major structural component of bacterial cell walls. MppA functions in the periplasmic space, where it binds to murein peptides and facilitates their transport across the inner membrane into the bacterial cell. This process is crucial for the recycling and utilization of murein peptides in the synthesis of new peptidoglycan. Understanding the role of MppA contributes to the knowledge of bacterial cell wall dynamics and adaptation to environmental changes.

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.