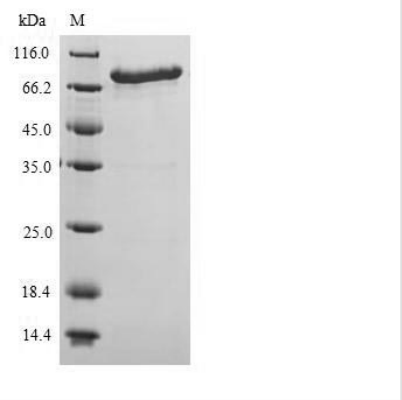
Recombinant Escherichia coli Probable phosphatidylethanolamine transferase Mcr-1 (mcr1)

Product Code	CSB-CF745804ENL
Relevance	Probably catalyzes the addition of a phosphoethanolamine moiety to lipid A. Phosphoethanolamine modification of lipid A gives polymyxin resistance (PubMed:26603172).1 Publication Confers resistance to polymyxin-type antibiotics; expression of the Mcr-1 protein in E.coli increases colistin and polymyxin B minimal inhibitory concentration (MIC) from 0.5 mg/ml to 2.0 mg/ml. The pHNSHP45 plasmid can transfer efficiently (0.1 to 0.001) to other E.coli strains by conjugation and increases polymxin MIC by 8- to 16-fold; it may not require selective pressure to be maintained in the cell. When transformed into K.pneumoniae or P.aeruginosa it also increases polymxin MIC 8- to 16-fold. In a murine (BALB/c mice) thigh infection study using an mcr1-encoding plasmid isolated from a human patient, the plasmid confers in vivo protection against colistin (PubMed:26603172).
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.	A0A0R6L508
Product Type	Transmembrane Protein
Immunogen Species	Escherichia coli
Purity	≥ 90% as determined by SDS-PAGE.
Sequence	MMQHTSVWYRRSVSPFVLVASVAVFLTATANLTFFDKISQTYPIADNLGFVLTI AVVLFGAMLLITTLLSSYRYVLKPVLILLLIMGAVTSYFTDTYGTVYDTTMLQNAL QTDQAETKDLLNAAFIMRIIGLGVLPSLLVAFVKVDYPTWGKGLMRRLGLIVASL ALILLPVVAFSSHYASFFRVHKPLRSYVNPIMPIYSVGKLASIEYKKASAPKDTIY HAKDAVQATKPDMRKPRLVVFVVGETARADHVSFNGYERDTTPQLAKIDGVT NFSNVTSCGTSTAYSVPCMFSYLGADEYDVDTAKYQENVLDTLDRLGVSILWR DNNSDSKGVMDKLPKAQFADYKSATNNAICNTNPYNECRDVGMLVGLDDFVA ANNGKDMLIMLHQMGNHGPAYFKRYDEKFAKFTPVCEGNELAKCEHQSLINA YDNALLATDDFIAQSIQWLQTHSNAYDVSMLYVSDHGESLGENGVYLHGMPN AFAPKEQRSVPAFFWTDKQTGITPMATDTVLTHDAITPTLLKLFDVTADKVKDR TAFIR
Research Area	Others
Source	in vitro E.coli expression system
Target Names	mcr1

Protein Names	Polymyxin resistance protein MCR-1
Expression Region	1-541aa
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	76.1kDa
Protein Length	Full Length

Image



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

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

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