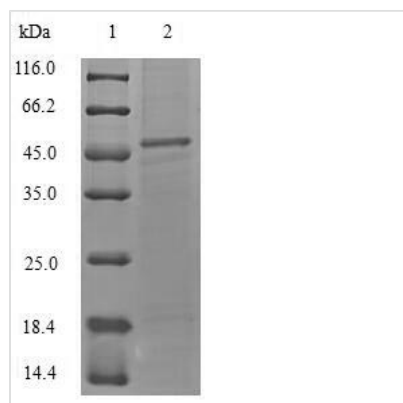




Recombinant Staphylococcus aureus Alpha-hemolysin (hly)

Product Code	CSB-EP639324FLF
Relevance	Alpha-toxin binds to the mbrane of eukaryotic cells resulting in the release of low-molecular weight molecules and leading to an eventual osmotic lysis. Heptamer oligomerization and pore formation is required for lytic activity .
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.	Q2G1X0
Alias	Alpha-toxin
Product Type	Recombinant Protein
Immunogen Species	Staphylococcus aureus (strain NCTC 8325)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	ADSDINIKTGTTDIGSNTTVKTGDLVTYDKENGMHKKVFYSFIDDKNHNKLLVI RTKGTIAGQYRVYSEEGANKSGLAWPSAFKVQLQLPDNEVAQISDYYPRNSID TKEYMSTLTYGFGNGNVTGDDTGKIGGLIGANVSIGHTLKYVQPDFKTILESPTD KKVGWKVIFNNMVNQNWGPYDRDSWNPVYGNQLFMKTRNGSMKAADNFLD PNKASSLLSSGFSPDFATVITMDRKASKQQTNIDVIYERVDDYQLHWTSTNW KGTNTKDKWIDRSSERYKIDWEKEEMTN
Lead Time	3-7 business days
Research Area	Others
Source	E.coli
Gene Names	hly
Expression Region	27-319aa
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	49.3kDa
Protein Description	Full Length of Mature Protein
Image	



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

Description

To prepare this Recombinant *S. aureus* hly protein, the recombinant DNA was required, which was generated by fusing the hly gene with N-terminal 6xHis-SUMO tag sequence. Once the recombinant DNA was amplified and purified, a protein expression system, *E. coli*, was needed for this hly protein production. After purification, a premium hly recombinant protein was obtained. According to SDS-PAGE, its purity turns out to be 90%+.

hly, also known as hla, is a gene encoding a protein named Alpha-hemolysin or Alpha-toxin that is the major cytotoxic agent released by bacterium *Staphylococcus aureus*. The encoded protein Hla can lyse many types of cells, including human monocytes, lymphocytes, red blood cells, platelets and endothelial cells. It is secreted outside the cell in the form of a soluble monomer, and then aggregates on various cell membranes in the form of a heptamer. Small molecules in the cytoplasm, such as ATP, leak out of the cell through the pores, irreversibly changing the osmotic pressure of the cell. disrupt the integrity of cell membranes.

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.