

Recombinant Staphylococcus aureus Hla Protein, His tagged

Cat. No. Hla-731S **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Alpha-hemolysin Protein (A27-N319), <i>S. aureus</i> (P.pastoris, His) is a recombinant Alpha-hemolysin protein expressed by <i>P. pastoris</i> yeast with N-6*His tag.
Species	<i>Staphylococcus aureus</i>
Source	Yeast
ProteinLength	27-319 aa
Description	Alpha-hemolysin, <i>S. aureus</i> is a pore-forming toxin secreted by <i>Staphylococcus aureus</i> (<i>S. aureus</i>) and belongs to the cholesterol-dependent cytolysin (CDC) family. Alpha-hemolysin can aggregate into heptamer transmembrane pores on the target cell membrane, leading to cell lysis. Alpha-hemolysin promotes infection mainly by destroying the barrier function of corneal epithelial cells, inhibiting epithelial cell migration and viability, and enhancing the invasive ability of bacteria to host cells. The perforation mechanism of alpha-hemolysin is related to ion imbalance and signaling pathway disorder caused by membrane perforation. Alpha-hemolysin can be used to study the pathological mechanism of infectious keratitis, especially its role in delayed corneal wound healing. Blocking alpha-hemolysin or limiting staphylococcal colonization has become a potential inhibitory strategy for corneal trauma and infectious diseases.
Form	Lyophilized powder
Molecular Mass	35 kDa

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AASequence	ADSDINIKTGTTDIGSNTTVKTGDLVTYDKENGMHKKVFYSFIDDKNHNKLLVIRTK GTIAGQYRVYSEEGANKSGLAWPSAFKVQLQLPDNEVAQISDYYPNRSIDTKEYMS TLTYGFNGNVTGDDTGKIGGLIGANVSIGHTLK YVQPDFKTILESPTDKKVGWKVIFN NMVNQNWGPYDRDSWNPVYGNQLFMKTRNGSMKAADNFLDPNKASSLLSSGFSP DFATVITMDRKASKQQTNIDVIYERVRDDYQLHWTSTNWKGNTKDKWIDRSSERY KIDWEKEEMTN
Endotoxin	<1 EU/μg by LAL
Purity	> 90% by SDS-PAGE
Storage	Stored at -20 centigrade for 2 years from date of receipt. After reconstitution, it is stable at 4 centigrade for 1 week or -20 centigrade for longer (with carrier protein). It is recommended to freeze aliquots at -20 or -80 centigrade for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O.
Storage Buffer	Lyophilized from a 0.22 μm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% trehalose, pH 8.0.

GENE INFORMATION

Gene Name	SAOUHSC_01121 alpha-hemolysin [<i>Staphylococcus aureus</i> subsp. <i>aureus</i> NCTC 8325]
Official Symbol	SAOUHSC_01121
Synonyms	SAOUHSC_01121; alpha-hemolysin precursor; Hla; Alpha-hemolysin; hly; hla; Alpha-

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	HL; Alpha-toxin
Gene ID	3920722
Protein Refseq	YP_499665
UniProt ID	Q2G1X0

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