

Staphopain B Protein, *S. aureus* (GST)

Cat. No.:	HY-P71624
Synonyms:	sspB; SAV1047; Staphopain B; EC 3.4.22.-; Staphylococcal cysteine proteinase B; Staphylopain B
Species:	Staphylococcus aureus
Source:	E. coli
Accession:	Q99V46 (220D-393Y)
Gene ID:	/
Molecular Weight:	Approximately 46.9 kDa

PROPERTIES

AA Sequence	<p>D Q V Q Y E N T L K N F K I R E Q Q F D N S W C A G F S M A A L L N A T K N T D</p> <p>T Y N A H D I M R T L Y P E V S E Q D L P N C A T F P N Q M I E Y G K S Q G R D</p> <p>I H Y Q E G V P S Y N Q V D Q L T K D N V G I M I L A Q S V S Q N P N D P H L G</p> <p>H A L A V V G N A K I N D Q E K L I Y W N P W D T E L S I Q D A D S S L L H L S</p> <p>F N R D Y N W Y G S M I G Y</p>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>Staphopain B, a cysteine protease, assumes a pivotal role in undermining the host innate immune response by targeting various host proteins. It exhibits the ability to degrade host elastin, fibrogen, fibronectin, and kininogen. Furthermore, Staphopain B interferes with the host's defense mechanisms by impeding the phagocytosis of opsonized <i>S. aureus</i> through the induction of death in neutrophils and monocytes in a proteolytic activity-dependent manner. This inhibition extends to the downregulation of the 'don't eat me' signal CD31 on neutrophils. Additionally, Staphopain B cleaves host galectin-3/LGALS3, thereby thwarting the neutrophil-activating capabilities of this lectin. Notably, the premature activation/folding</p>
------------	---

of Staphopain B can be regulated by staphostatin B (SspC), which likely serves a protective role by preventing the degradation of staphylococcal cytoplasmic proteins by SspB.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA