

PRODUCT INFORMATION



Histatin 5 (trifluoroacetate salt)

Item No. 36721

Formal Name:	L- α -aspartyl-L-seryl-L-histidyl-L-alanyl-L-lysyl-L-arginyl-L-histidyl-L-histidylglycyl-L-tyrosyl-L-lysyl-L-arginyl-L-lysyl-L-phenylalanyl-L-histidyl-L- α -glutamyl-L-lysyl-L-histidyl-L-histidyl-L-seryl-L-histidyl-L-arginylglycyl-L-tyrosine, trifluoroacetate salt	H—Asp—Ser—His—Ala—Lys—Arg—His—His—Gly—Tyr—Lys—Arg—Lys—Phe—His—Glu—Lys—His—His—Ser—His—Arg—Gly—Tyr—OH
Synonym:	Hst-5	• XCF ₃ COOH
Peptide Sequence:	DSHAKRRHHGYKRKFHEKHHSHRGY	
MF:	C ₁₃₃ H ₁₉₅ N ₅₁ O ₃₃ • XCF ₃ COOH	
FW:	3,036.3	
Purity:	≥98%	
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Histatin 5 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histatin 5 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Histatin 5 (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of histatin 5 (trifluoroacetate salt) in DMSO is approximately 10 mg/ml and approximately 12 mg/ml in ethanol and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of histatin 5 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of histatin 5 (trifluoroacetate salt) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Histatin 5 is a salivary antimicrobial peptide.¹⁻³ It is active against *C. albicans* (LC₅₀ = 1.8 μ M), as well as *A. baumannii*, *P. aeruginosa*, and *E. cloacae* (MICs = 38, 47, and 90 μ M, respectively).^{1,2} Topical application of histatin 5 (20 μ M) decreases fungal burden in a mouse model of *C. albicans*-induced vulvovaginal candidiasis.³

References

1. Edgerton, M., Koshlukova, S.E., Lo, T.E., *et al.* Candidacidal activity of salivary histatins. *J. Biol. Chem.* **273**(32), 20438-20447 (1998).
2. Du, H., Puri, S., McCall, A., *et al.* Human salivary protein histatin 5 has potent bactericidal activity against ESKAPE pathogens. *Front. Cell. Infect. Microbiol.* **7**, 41 (2017).
3. Liao, H., Liu, S., Wang, H., *et al.* Efficacy of Histatin5 in a murine model of vulvovaginal candidiasis caused by *Candida albicans*. *Pathog. Dis.* **75**(6), (2017).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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