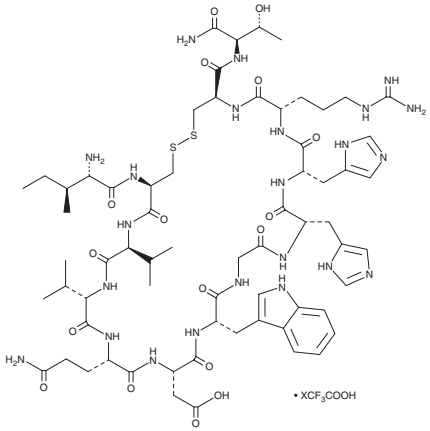
PRODUCT INFORMATION

Compstatin (trifluoroacetate salt)

Item No. 34435

Formal Name:	L-isoleucyl-L-cysteinyl-L-valyl-L-valyl-L-glutaminyl-L-α-aspartyl-L-tryptophylglycyl-L-histidyl-L-histidyl-L-arginyl-L-cysteinyl-L-threoninamide, cyclic (2→12)-disulfide, trifluoroacetate salt
Synonym:	ICVVQDWGHHRCT
MF:	$C_{66}H_{99}N_{23}O_{17}S_2 \bullet XCF_3COOH$
FW:	1,550.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 220 nm
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

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

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 compstatin (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of compstatin (trifluoroacetate salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Compstatin is a cyclic peptide inhibitor of complement activation (IC_{50}s = 63 and 12 µM for the classical and alternative pathways, respectively).[1,2] It binds to complement component 3 (C3) and inhibits convertase-mediated cleavage of C3 to the complement activation products C3a and C3b.[3] Compstatin (70 µM) inhibits the generation of C3a, activation of polymorphonuclear leukocytes (PMNs), and the binding of PMNs to the polymer surface in an isolated human whole blood model of extracorporeal circulation.[4] *In vivo*, compstatin (21 mg/kg) inhibits the generation of C3b, C3c, and iC3b in a baboon model of heparin- and protamine-induced complement activation.[5]

References

1. Sahu, A., Kay, B.K., and Lambris, J.D. *J. Immunol.* **157(2)**, 884-891 (1996).
2. Huang, Y. *Expert Opin. Drug Discov.* **13(5)**, 435-444 (2018).
3. Ricklin, D. and Lambris, J.D. *Adv. Exp. Med. Biol.* **632**, 273-292 (2008).
4. Nilsson, B., Larsson, R., Hong, J., *et al. Blood* **92(5)**, 1661-1667 (1998).
5. Soulika, A.M., Khan, M.M., Hattori, T., *et al. Clin. Immunol.* **96(3)**, 212-221 (2000).

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.

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