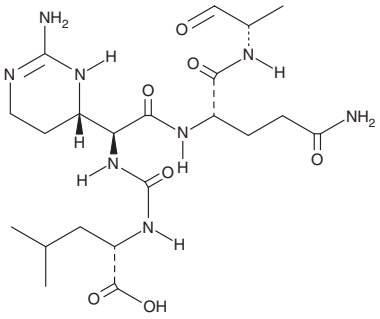
PRODUCT INFORMATION

Elastatinal

Item No. 22288

CAS Registry No.: 51798-45-9
Formal Name: (2S)-2-[(4S)-2-amino-3,4,5,6-tetrahydro-4-pyrimidinyl]-N-[[[(1S)-1-carboxy-3-methylbutyl]amino]carbonyl]glycyl-N^1-[(1S)-2-oxyethyl]-L-glutamamide
MF: $C_{21}H_{36}N_8O_7$
FW: 512.6
Purity: ≥85%
Supplied as: A crystalline 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

Elastatinal is supplied as a crystalline solid. A stock solution may be made by dissolving the elastatinal in the solvent of choice, which should be purged with an inert gas. Elastatinal is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of elastatinal in these solvents is approximately 20 and 33 mg/ml, respectively.

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

Description

Elastatinal is a potent inhibitor of pancreatic elastase (K_i = 240 nM) that is produced by various species of *Actinomycetes*.[1] It more strongly inhibits pancreatic elastase *versus* the leukocyte-derived enzyme.[2,3] Elastatinal reduces electrophoretic mobilities of 2A proteinases from poliovirus and human rhinovirus 14 in a dose-dependent manner, indicating substrate recognition by 2A proteinases is similar to that of pancreatic elastases.[4] It can also inhibit elastase-like protease collagenolytic protease from *C. maenas* digestive glands.[5]

References

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3. Okumura, Y., Ogawa, K., and Uchiya, K. *Nishon Ishinkin Gakkai Zasshi* **48(1)**, 13-18 (2007).
4. Molla, A., Hellen, C.U.T., Wimmer, E. *J. Virol.* **67(8)**, 4688-4695 (1993).
5. Roy, P., Colas, B., and Durand, P. *Comp. Biochem. Physiol. Biochem. Mol. Biol.* **115(1)**, 87-95 (1996).

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