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Product Information

Elastatinal

Product Number **E 0881**

Storage Temperature -0 °C

Product Description

Molecular Formula: $C_{21}H_{36}N_8O_7$

Molecular Weight: 512.6

CAS Number: 51798-45-9

pK_a : 3.7 and $>10.5^1$

λ_{max} : 275 nm, 298 nm

Extinction coefficient: $E^{1\%} = 1.5$ (0.1 N HCl),
2.5 (0.1 M phosphate, pH 7.0)¹

Elastatinal is a strong competitive inhibitor of elastase which is found in some species of Streptomyces, showing 50% inhibition at 0.29 $\mu\text{g/ml}$, while greater than 250 $\mu\text{g/ml}$ is required for other proteases.^{1,2} A method of purification from bacteria and an assay procedure have been reported.^{1,3}

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in water (20 mg/ml). It has been reported to be soluble in methanol, pyridine, and dimethyl sulfoxide, and slightly soluble in ethanol. Alkaline solutions are unstable.

Storage/Stability

A working solution of 10-100 μM in water is stable for several hours. A stock solution of 10 mM in water is stable for 1 week at 4 °C and for months at -20 °C.⁴

References

1. Umezawa, H., et al., J. Antibiotics, **26**, 787-789 (1973).
2. Okura, A., et al., J. Antibiotics, **28**, 337 (1975).
3. Umezawa, H., Structures and Activities of Protease Inhibitors of Microbial Origin. Meth. Enzymol., **45**, 687-689 (1976).
4. Proteolytic Enzymes: A Practical Approach, 2nd ed., Appendix III, p. 244-245. Beynon, R. and Bond, J. S., eds., Oxford University Press (Oxford, UK: 1989).

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