

E 64c

Chemical Properties

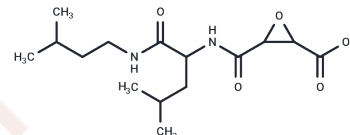
CAS No. : 76684-89-4

Formula: C₁₅H₂₆N₂O₅

Molecular Weight: 314.38

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	E 64c (EP 475) , a derivative of E-64, is an irreversible and membrane-permeant cysteine protease inhibitor.
Targets(IC50)	Cysteine Protease,SARS-CoV
In vitro	Loxistatin Acid (E-64C), as a thiol protease inhibitor, inhibits calpain activity in intact platelets. [1]E-64C inhibits β -secretase activity in regulated secretory vesicles of neuronal chromaffin cells, and decrease A β production, indicating a therapeutic strategy for Alzheimer's disease. [4]
In vivo	In pectoral muscle of dystrophic chickens, Loxistatin Acid (E-64C) normalizes the increased activities of cathepsin B and cathepsin H. [2] E-64C inhibits ischemic degradation of cerebral proteins following occlusion of the middle cerebral artery in rats. [3]

Solubility Information

Solubility	H ₂ O: 2 mg/mL (6.36 mM),Sonication is recommended. DMSO: 58 mg/mL (184.49 mM),Sonication is recommended. Ethanol: 58 mg/mL (184.49 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.36 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1809 mL	15.9043 mL	31.8086 mL
5 mM	0.6362 mL	3.1809 mL	6.3617 mL
10 mM	0.3181 mL	1.5904 mL	3.1809 mL
50 mM	0.0636 mL	0.3181 mL	0.6362 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

McGowan EB, et al. Biochem Biophys Res Commun. 1989, 158(2), 432-435.

Noda T, et al. J Biochem. 1981, 90(3), 893-896.

Inuzuka T, et al. Brain Res. 1990, 526(1), 177-179.

Hook VY, et al. J Neurosci Res. 2003, 74(3), 393-405.

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