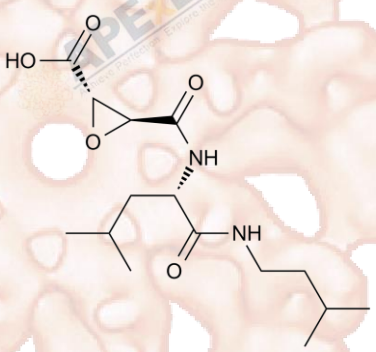
Product Data Sheet

E-64-c

Cat. No.:	A8162
CAS No.:	76684-89-4
Formula:	C15H26N2O5
M.Wt:	314.4
Synonyms:	
Target:	Proteases
Pathway:	Cathepsin
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

⩾31.4 mg/mL in DMSO; insoluble in H2O; ⩾111.8 mg/mL in EtOH

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	3.1807 mL	15.9033 mL	31.8066 mL
5 mM	0.6361 mL	3.1807 mL	6.3613 mL
10 mM	0.3181 mL	1.5903 mL	3.1807 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Inhibitor of cysteine proteinases
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Neuronal chromaffin cells
Preparation method:	The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
Reacting conditions:	10 μM

	Applications:	In neuronal chromaffin cells, E-64-c inhibited the production of the 12 ~ 14 kDa β-secretase product from APP. In addition, when tested in isolated, intact secretory vesicles, E-64-c reduced the production of Aβ (1 ~ 40). These results indicated an important role of E-64-c in β-secretase processing of APP in neuronal chromaffin cells.
In Vivo	**Animal experiment**	
	Animal models:	Rat models of cerebral ischemia
	Dosage form:	400 mg/kg; i.p.; b.i.d, for 3 days
	Applications:	In rat models of cerebral ischemia, E-64-c significantly inhibited the ischemia-induced depletion of microtubule-associated protein 2 (MAP2). E-64-c increased MAP2 levels to 55 ± 25.7% of control levels (sham-operated rats used as controls). However, E-64-c showed no marked effect on the decrease of myelin-associated glycoprotein caused by ischemia.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Hook VY, Reisine TD. Cysteine proteases are the major beta-secretase in the regulated secretory pathway that provides most of the beta-amyloid in Alzheimer's disease: role of BACE 1 in the constitutive secretory pathway. J Neurosci Res. 2003 Nov 1;74(3):393-405.

[2]. Inuzuka T, Tamura A, Sato S, et al. Suppressive effect of E-64c on ischemic degradation of cerebral proteins following occlusion of the middle cerebral artery in rats[J]. Brain research, 1990, 526(1): 177-179.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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