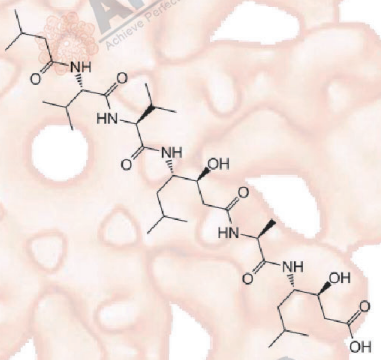
Product Data Sheet

Pepstatin A



Cat. No.:	A2571
CAS No.:	26305-03-3
Formula:	C34H63N5O9
M.Wt:	685.9
Synonyms:	Pepstatin A,NSC272671,Isoval-Val-Val-Sta-Ala-Sta
Target:	Proteases
Pathway:	Other Proteases
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

⩾34.3 mg/mL in DMSO; insoluble in H2O; insoluble in EtOH

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1mg	5mg	10mg
1 mM	1.4579 mL	7.2897 mL	14.5794 mL
5 mM	0.2916 mL	1.4579 mL	2.9159 mL
10 mM	0.1458 mL	0.7290 mL	1.4579 mL

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

Biological Activity

Shortsummary	Aspartic proteinases inhibitor
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	H9 cells, Bone marrow cells
Preparation method:	The solubility of this compound in DMSO is >34.3mg/mL. 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:	0.1 mM for 2, 4, or 11 days, 37 ℃
	Applications:	Pepstatin A inhibited the proteolytic processing of the HIV gag precursor in H9 cells. Pepstatin A inhibited the production of infectious HIV in H9 cell cultures. Pepstatin A (15–120 μM) dose-dependently suppressed the formation of TRAP-positive multinuclear cells. Pepstatin A dose-dependently suppressed the RANKL-induced osteoclastogenesis from stromal cell–deprived bone marrow cells in the co-culture system and bone marrow culture. Pepstatin A (15 μM) substantially inhibited the aspartic proteinase activity in bone marrow cells, while complete inhibition was seen at 90 μM.
In Vivo	**Animal experiment**	
	Applications:	
	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

1. Ying Long, Xuri Zhang, et al. "Initial events in the breakthrough of the epithelial barrier of the small intestine by Angiostrongylus cantonensis." Arch Biol Sci. 2016;68(2):375-383

See more customer validations on www.apexbt.com.

References

[1]. Sarubbi E, Seneci P F, Angelastro M R, et al. Peptide aldehydes as inhibitors of HIV protease. FEBS letters, 1993, 319(3): 253-256.

[2]. von der Helm K, Gürtler L, Eberle J, et al. Inhibition of HIV replication in cell culture by the specific aspartic protease inhibitor pepstatin A. FEBS letters, 1989, 247(2): 349-352.

[3] Yoshida H, Okamoto K, Iwamoto T, et al. Pepstatin A, an aspartic proteinase inhibitor, suppresses RANKL-induced osteoclast differentiation. Journal of biochemistry, 2006, 139(3): 583-590. >

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.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com