

Aurantiamide acetate

Chemical Properties

CAS No. : 56121-42-7

Formula: C₂₇H₂₈N₂O₄

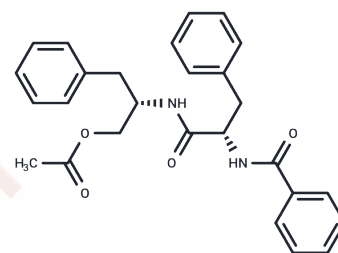
Molecular Weight: 444.52

Storage:

Keep away from direct sunlight, Keep away from moisture

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	Aurantiamide acetate (Asperglaucide) was isolated from the fermentation broth of <i>Aspergillus penicilloides</i> for the first time. Aurantiamide acetate is a selective and orally active cathepsin inhibitor. Aurantiamide acetate has anti-inflammatory activities and can be used for the study of inflammatory diseases[1][2].
Targets(IC50)	Cysteine Protease
In vitro	Aurantiamide acetate decreases viability of U87 and U251 cancer cells in vitro when used at concentrations ranging from 10 to 100 μ M. Aurantiamide acetate inhibited cysteine proteinases, in particular, cathepsin L and B with IC ₅₀ of 12 microM and 49 microM, respectively.
In vivo	Aurantiamide acetate reduces tumor growth when administered at a dose of 1 mg via intratumoral injection in a U87 mouse xenograft model. In the adjuvant-arthritic rat model, subcutaneously administered 10 mg/kg body weight of this compound suppressed hind paw swelling.

Solubility Information

Solubility	DMSO: 55 mg/mL (123.73 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (5.62 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	2.2496 mL	11.2481 mL	22.4962 mL
5 mM	0.4499 mL	2.2496 mL	4.4992 mL
10 mM	0.225 mL	1.1248 mL	2.2496 mL
50 mM	0.045 mL	0.225 mL	0.4499 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

- K Isshiki, et al. Aurantiamide Acetate, a Selective Cathepsin Inhibitor, Produced by *Aspergillus Penicilloides*. *Biosci Biotechnol Biochem*. 2001 May;65(5):1195-7.
- Chi-Su Yoon, et al. Anti-neuroinflammatory Effect of Aurantiamide Acetate From the Marine Fungus *Aspergillus Sp. SF-5921*: Inhibition of NF- κ B and MAPK Pathways in Lipopolysaccharide-Induced Mouse BV2 Microglial Cells. *Int Immunopharmacol*. 2014 Dec;23(2):568-74.

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