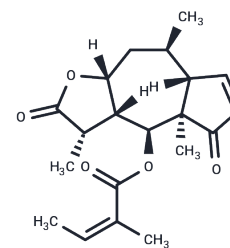


Brevilin A

Chemical Properties

CAS No. :	16503-32-5
Formula:	C ₂₀ H ₂₆ O ₅
Molecular Weight:	346.42
Storage:	Store at low temperature, Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Brevilin A is a sesquiterpene lactone isolated from <i>Centipeda minima</i> , inhibits janus kinase activity and blocks STAT3 signaling in cancer cells with anti-tumor activity. Brevilin A is a selective inhibitor of JAK-STAT signal pathway by attenuating the JAKs activity and blocking STAT3 signaling (IC ₅₀ = 10.6 μM) in Cancer Cells. Brevilin A induces apoptosis and autophagy via mitochondrial pathway and PI3K/AKT/mTOR inactivation in colon adenocarcinoma cell CT26. antitumour
Targets(IC ₅₀)	Apoptosis, Anti-infection, STAT, Autophagy, JAK
In vitro	In vitro activity against <i>Giardia intestinalis</i> was used for bioassay-guided fractionation of crude extracts from <i>C. minima</i> . The sesquiterpene lactone, Brevilin A was isolated and found to have anti-giardial activity (IC ₅₀ = 16.1 μM) and was similarly active in vitro against <i>Entamoeba histolytica</i> (IC ₅₀ between 4.5 and 9 μM) and against <i>Plasmodium falciparum</i> (IC ₅₀ = 9.42 μM).?

Solubility Information

Solubility	DMSO: 100 mg/mL (288.67 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: 5 mg/mL (14.43 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	2.8867 mL	14.4333 mL	28.8667 mL
5 mM	0.5773 mL	2.8867 mL	5.7733 mL
10 mM	0.2887 mL	1.4433 mL	2.8867 mL
50 mM	0.0577 mL	0.2887 mL	0.5773 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

Antiprotozoal activities of *Centipeda minima*. *Phytother. Res.*, 1994, 8(8):436-8.

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