

Taccalonolide A

Chemical Properties

CAS No. : 108885-68-3

Formula: C₃₆H₄₆O₁₄

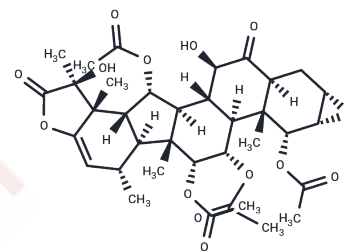
Molecular Weight: 702.74

Storage:

Keep away from direct sunlight, Keep away from moisture, Store at low temperature

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	Taccalonolide A is the first microtubule stabilizing agent to be discovered from a plant since identification of the mechanism of action of paclitaxel and it is the first natural product steroid identified to have these cellular effects, with cytotoxic and antimalarial activities. Taccalonolide A causes G ₂ -M accumulation, Bcl-2 phosphorylation and initiation of apoptosis. Taccalonolide A is effective in vitro against cell lines that overexpress P-glycoprotein (Pgp) and multidrug resistance protein 7 (MRP7), with an IC ₅₀ of 622 nM for SK-OV-3 cells.
Targets(IC ₅₀)	Apoptosis, Microtubule Associated

Solubility Information

Solubility	DMSO: 60 mg/mL (85.38 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 (2.85 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	1.423 mL	7.115 mL	14.230 mL
5 mM	0.2846 mL	1.423 mL	2.846 mL
10 mM	0.1423 mL	0.7115 mL	1.423 mL
50 mM	0.0285 mL	0.1423 mL	0.2846 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

Li J , Risinger A L , Mooberry S L . Taccalonolide microtubule stabilizers[J]. Bioorganic & Medicinal Chemistry, 2014, 22(18):5091-5096.

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