

(S)-Gossypol acetic acid

Chemical Properties

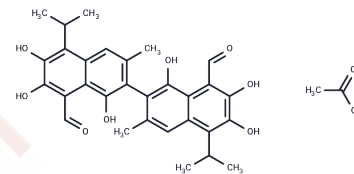
CAS No. : 1189561-66-7

Formula: C₃₂H₃₄O₁₀

Molecular Weight: 578.61

Storage: Keep away from direct sunlight
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	(S)-Gossypol acetic acid ((S)-(+)-Gossypol acetic acid) is a conformational isomer of Gossypol that acts as a BH3 mimic capable of binding Bcl-xL and Bcl-2 proteins, with the potential to induce apoptosis and inhibit cell growth.
Targets(IC50)	Bcl-2 Family
In vitro	(S)-Gossypol acetic acid inhibits proliferation and induces apoptosis in human nasopharyngeal carcinoma CNE-2 cells in a dose-dependent manner (2.5-20 μM, 24h). (S)-Gossypol acetic acid decreases mitochondrial membrane potential, upregulates Bax, downregulates Bcl-2, and activates caspase-3[1].
In vivo	In BALB/c nude mice bearing CNE-2 xenograft tumors, intraperitoneal administration of (S)-Gossypol acetic acid at 20mg/kg/day for 21 days significantly inhibited tumor growth (~60% reduction in volume) without notable weight loss or systemic toxicity[1].

Solubility Information

Solubility	DMSO: 40 mg/mL (69.13 mM), Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble) (< 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 (3.46 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	1.7283 mL	8.6414 mL	17.2828 mL
5 mM	0.3457 mL	1.7283 mL	3.4566 mL
10 mM	0.1728 mL	0.8641 mL	1.7283 mL
50 mM	0.0346 mL	0.1728 mL	0.3457 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

Oliver CL, et al. In vitro effects of the BH3 mimetic, (-)-Gossypol, on head and neck squamous cell carcinoma cells. Clin Cancer Res. 2004 Nov 15;10(22):7757-63.

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