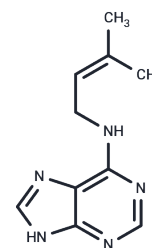


6-(γ,γ -Dimethylallylamino)purine

Chemical Properties

CAS No. :	2365-40-4
Formula:	C ₁₀ H ₁₃ N ₅
Molecular Weight:	203.24
Storage:	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	6-(γ,γ -Dimethylallylamino)purine (Triacanthine), which is a plant growth substance, shows hypertensive and antitumor activity, also cardiogenic, antispasmodic and a respiratory analeptic.
Targets(IC50)	Others
In vitro	6-(γ,γ -Dimethylallylamino)purine significantly inhibited EJ cell proliferation (IC ₅₀ 600 μ M). Flow cytometry analysis revealed that cells were arrested in the G1 phase, and apoptotic cells accumulated in the sub-G1 phase in a dose-dependent manner. 6-(γ,γ -Dimethylallylamino)purine inhibited the G1-S transition by deterring complex formation between cyclin-dependent kinases and cyclins, thereby up-regulating cell cycle inhibitors p21WAF1 and p27KIP1.
In vivo	In an in vivo study, 6-(γ,γ -Dimethylallylamino)purine significantly limited growth of xenografted tumors. Interestingly, while cisplatin resulted in significant weight loss after a 5-mg/kg dose, 6-(γ,γ -Dimethylallylamino)purine did not cause weight loss, behavioral abnormalities, altered biochemical parameters, or tissue staining. A single oral dose acute-toxicity test (6-(γ,γ -Dimethylallylamino)purine 2,000mg/kg) produced no adverse cytotoxic effects via blood biochemical tests and tissue-organ staining.

Solubility Information

Solubility	DMSO: 32.33 mg/mL (159.07 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: 1 mg/mL (4.92 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	4.9203 mL	24.6015 mL	49.2029 mL
5 mM	0.9841 mL	4.9203 mL	9.8406 mL
10 mM	0.492 mL	2.4601 mL	4.9203 mL
50 mM	0.0984 mL	0.492 mL	0.9841 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

Shin SS, et al. Triacanthine exerts antitumor effects on bladder cancer in vitro and in vivo. *Phytomedicine*. 2019 Aug 9;64:153069.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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