Data Sheet (Cat.No.T23172)

TargetMol

Polygodial

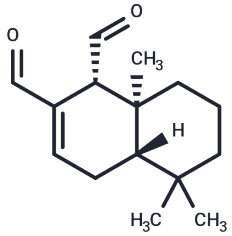
Chemical Properties

CAS No. : 6754-20-7

Formula: C15H22O2

Molecular Weight: 234.33

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	Polygodial (Tadeonal) is an antifungal potentiator and an antibiotic, particularly against Saccharomyces cerevisiae, Candida utilis, and Sclerotinia libertiana.
Targets(IC50)	Antifungal
In vitro	When tested on S. cerevisiae, polygodial proved to be fungicidal rather than fungistatic. When the cells of S. cerevisiae are treated in vitro with polygodial for 10 min, the cell membrane becomes severely damaged, and many vesicles, possibly formed from the fragmented cell membrane, can be observed within the cytoplasm[1].
In vivo	Polygodial (0.1 to 10 mg kg(-1), i.p.) produced significant inhibition of acetic acid, kaolin and zymosan-induced writhing in mice, being about 14 to 27-fold more potent than the hydroalcoholic extract at the ID50 level[2].

Solubility Information

Solubility	DMSO: 65 mg/mL (277.39 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 (8.53 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.2675 mL	21.3374 mL	42.6749 mL
5 mM	0.8535 mL	4.2675 mL	8.535 mL
10 mM	0.4267 mL	2.1337 mL	4.2675 mL
50 mM	0.0853 mL	0.4267 mL	0.8535 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

I Kubo, et al. Polygodial, an antifungal potentiator. J Nat Prod. Jan-Feb 1988;51(1):22-9.
G L Mendes, et al. Anti-hyperalgesic properties of the extract and of the main sesquiterpene polygodial isolated from the barks of Drymis winteri (Winteraceae). Life Sci. 1998;63(5):369-81.
C S Lunde, et al. Effect of polygodial on the mitochondrial ATPase of Saccharomyces cerevisiae. Antimicrob Agents Chemother. 2000 Jul;44(7):1943-53.

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