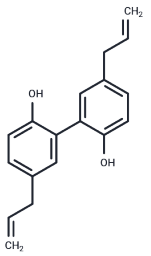
Data Sheet (Cat.No.T3000)

TargetMol

Magnolol

Chemical Properties



CAS No. : 528-43-8

Formula: C18H18O2

Molecular Weight: 266.33

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	Magnolol (5,5'-Diallyl-2,2'-biphenyldiol) is a dual agonist of RXRα(EC50=10.4 μM) and PPARγ(EC50=17.7 μM). It blocks TNF-α-induced NF-KB activation.
Targets(IC50)	NF-κB,Retinoid Receptor,Antibacterial,Autophagy,p53,PPAR
In vitro	Magnolol shows significant inhibitory activities against Trichophyton mentagrophytes, Microsporium gypseum, Epidermophyton floccosum, Aspergillus niger, Cryptococcus neoformans, and Candida albicans with minimum inhibitory concentrations (MIC) in a range of 25-100 μg/ml.

Solubility Information

Solubility	DMSO: 245 mg/mL (919.91 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 49 mg/mL (183.98 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 (18.77 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	3.7547 mL	18.7737 mL	37.5474 mL
5 mM	0.7509 mL	3.7547 mL	7.5095 mL
10 mM	0.3755 mL	1.8774 mL	3.7547 mL
50 mM	0.0751 mL	0.3755 mL	0.7509 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

Ai J, et al. Pharmacology, 2001, 63(1), 34-41.
Kuang Y, Chai Y, Xu L, et al. Glabrone as a specific UGT1A9 probe substrate and its application in discovering the inhibitor glycycoumarin. European Journal of Pharmaceutical Sciences. 2021: 105786.
Bang KH, et al. Arch Pharm Res, 2000, 23(1), 46-49.
Kuang Y, Chai Y, Xu L, et al. Glabrone as a specific UGT1A9 probe substrate and its application in discovering the inhibitor glycycoumarin[J]. European Journal of Pharmaceutical Sciences. 2021: 105786.