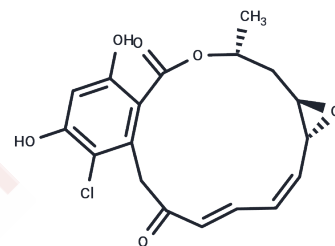


Radicicol

Chemical Properties

CAS No. :	12772-57-5
Formula:	C ₁₈ H ₁₇ ClO ₆
Molecular Weight:	364.78
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Radicicol (Monorden) is an antifungal antibiotic and a potent inhibitor of heat shock protein 90 (Hsp90), which leads to the degradation of Hsp90 by the proteasome by binding to its ATP-binding pocket. In addition, Radicicol inhibits the growth and proliferation of several tumor cell lines. It also has anti-malarial activity and acts as an inhibitor of adipose- and obesity-related proteins (FTO). Radicicol inhibits iNOS gene expression by blocking the p38 kinase signaling pathway and NF-κB/Rel
Targets(IC50)	HSP,NOS,NF-κB,Antibacterial,Antibiotic,Parasite,Antifungal,p38 MAPK
In vitro	Radicicol inhibits PDK1 activity with an IC50 value of 230 nM and PDK3 with an IC50 value of 400 nM.[1]
In vivo	Methods: Radicicol (20 mg/kg/60 mg/kg, intraperitoneal injection, 2 doses, 1 h apart) was administered to mice to observe its inhibitory effect on (I/R) injury in mice. Results: Radicicol has a renal protective effect, improves renal ischemia-reperfusion (I/R) injury, and increases renal HSP70 mRNA and protein in mice with renal injury. [4]

Solubility Information

Solubility	DMSO: 80 mg/mL (219.31 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7414 mL	13.7069 mL	27.4138 mL
5 mM	0.5483 mL	2.7414 mL	5.4828 mL
10 mM	0.2741 mL	1.3707 mL	2.7414 mL
50 mM	0.0548 mL	0.2741 mL	0.5483 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

- Kato M, et al. Distinct structural mechanisms for inhibition of pyruvate dehydrogenase kinase isoforms by AZD7545, dichloroacetate, and radicicol. *Structure*. 2007 Aug;15(8):992-1004. Epub 2007 Aug 2.
- Chalapareddy S, et al. Radicicol confers mid-schizont arrest by inhibiting mitochondrial replication in *Plasmodium falciparum*. *Antimicrob Agents Chemother*. 2014 Aug;58(8):4341-52.
- Wang R, et al. Identification of Natural Compound Radicicol as a Potent FTO Inhibitor. *Mol Pharm*. 2018 Sep 4;15(9):4092-4098.
- Sonoda H, et al. The protective effect of radicicol against renal ischemia--reperfusion injury in mice. *J Pharmacol Sci*. 2010;112(2):242-6.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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