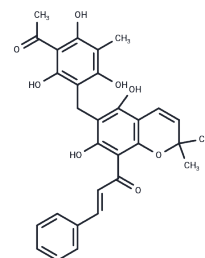


Rottlerin

Chemical Properties

CAS No. :	82-08-6
Formula:	C ₃₀ H ₂₈ O ₈
Molecular Weight:	516.54
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	Rottlerin (NSC-56346) is a natural product purified from <i>Mallotus philippinensis</i> and is a specific PKC inhibitor (IC ₅₀ : PKC δ of 3-6 μ M, PKC α,β,γ of 30-42 μ M, PKC ϵ,η,ζ of 80-100 μ M). Rottlerin causes apoptosis via caspase 3 activation.
Targets(IC ₅₀)	CaMK, Apoptosis, HIV Protease, Autophagy, PKA, PKC
In vitro	Rottlerin (20 μ M) shows cell proliferation in HMVEC. Rottlerin (20 μ M, 2/6/24 hours) dramatically reduces the cyclin D-1 mRNA levels in a time-dependent manner in primary HMVEC [2].
In vivo	Rottlerin inhibits tumor cell proliferation and causes apoptosis through activation of caspase-3 and cleavage of the poly polymerase. Rottlerin (20 mg/kg, gavage 5 days per week, once daily, for 6 weeks) inhibits AsPC-1 pancreatic tumor growth in Balb C nude mice with no toxicity [3].

Solubility Information

Solubility	DMSO: 6.02 mg/mL (11.65 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 (1.94 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	1.936 mL	9.6798 mL	19.3596 mL
5 mM	0.3872 mL	1.936 mL	3.8719 mL
10 mM	0.1936 mL	0.968 mL	1.936 mL
50 mM	0.0387 mL	0.1936 mL	0.3872 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

Gschwendt M, et al. Rottlerin, a novel protein kinase inhibitor. *Biochem Biophys Res Commun.* 1994 Feb 28;199(1): 93-8.

Qin X, Liu B, Gao F, et al. Gluconolactone Alleviates Myocardial Ischemia/Reperfusion Injury and Arrhythmias via Activating PKC ϵ /Extracellular Signal-Regulated Kinase Signaling. *Frontiers in Physiology.* 2022: 455.

Valacchi G, et al. Rottlerin exhibits antiangiogenic effects in vitro. *Chem Biol Drug Des.* 2011 Jun;77(6):460-70.

Minzhao Huang, et al. Rottlerin suppresses growth of human pancreatic tumors in nude mice, and pancreatic cancer cells isolated from KrasG12D mice. *Cancer Letters* 353 (2014) 32-40.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481