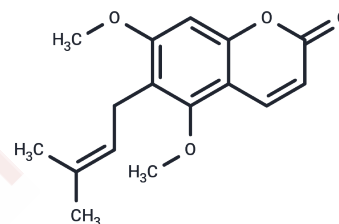


Toddaculin

Chemical Properties

CAS No. :	4335-12-0
Formula:	C ₁₆ H ₁₈ O ₄
Molecular Weight:	274.31
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	Toddaculine may be beneficial for the prevention and treatment of osteoporosis, it can not only inhibit the differentiation of osteoclasts via activation of the NF-κB, ERK 1/2, and p38 MAPK signaling pathways, but can induce differentiation and mineralization of osteoblasts by regulating differentiation factors. Toddaculine also may serve as a pharmacological prototype for the development of novel anti-leukemic agents, it displays a dual effect as a cell differentiating agent and apoptosis inducer in U-937 cells.
Targets(IC50)	Apoptosis,Others
In vitro	toddaculin displays a dual effect as a cell differentiating agent and apoptosis inducer in U-937 cells, suggesting it may serve as a pharmacological prototype for the development of novel anti-leukemic agents[1].

Solubility Information

Solubility	DMSO: 55 mg/mL (200.5 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	3.6455 mL	18.2276 mL	36.4551 mL
5 mM	0.7291 mL	3.6455 mL	7.291 mL
10 mM	0.3646 mL	1.8228 mL	3.6455 mL
50 mM	0.0729 mL	0.3646 mL	0.7291 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

Vázquez, Riveiro, M. E , et al. Toddaculin, a natural coumarin from *Toddalia asiatica*, induces differentiation and apoptosis in U-937 leukemic cells.

Kumagai M , Watanabe A , Yoshida I , et al. Evaluation of Aculeatin and Toddaculin Isolated from *Toddalia asiatica* as Anti-inflammatory Agents in LPS-Stimulated RAW264 Macrophages[J]. *Biological and Pharmaceutical Bulletin*, 2018, 41(1):132-137.

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