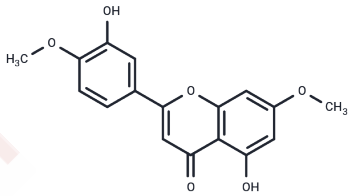
Data Sheet (Cat.No.TN2073)

TargetMol

Pilloin

Chemical Properties



CAS No. : 32174-62-2

Formula: C17H14O6

Molecular Weight: 314.29

Storage: Keep away from direct sunlight,Keep away from moisture
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	Pilloin is a synthetic small molecule employed in chemical biology research for its activity as a selective ATP-competitive kinase modulator. Pilloin influences downstream signaling events such as cellular proliferation, differentiation, and apoptosis, making Pilloin a valuable tool for dissecting oncogenic signaling networks, inflammatory pathways, and metabolic regulation in vitro, and it supports proof-of-concept studies in preclinical disease models.
Targets(IC50)	ATPase
In vitro	Pilloin (3-30 μM, 1-24 hours) significantly inhibited the transcriptional activity of NF-κB and the phosphorylation of its upstream regulatory protein IκB in bacterial LPS-induced RAW 264.7 cells, while only causing slight cytotoxicity at 30 μM, with a cell survival rate of 85% [3].
In vivo	Pilloin (10 mg/kg, i.p.) significantly reduced the expression levels of pro-inflammatory cytokines TNF-α and IL-6 in the serum of LPS-induced septic C57BL/6 male mice. At the same time, Pilloin also markedly inhibited IL-6 expression in multiple organs (liver, lung, spleen, and kidney).

Solubility Information

Solubility	DMSO: 24 mg/mL (76.36 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1818 mL	15.9089 mL	31.8177 mL
5 mM	0.6364 mL	3.1818 mL	6.3635 mL
10 mM	0.3182 mL	1.5909 mL	3.1818 mL
50 mM	0.0636 mL	0.3182 mL	0.6364 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

Effects of the Flavonoid Pilloin Isolated from Marrubium cylleneum on Mitogen-Induced Lymphocyte Transformation Pharmaceutical Biology, 2008, 40(4):245-248.
Fotios Michelis, et al. Effects of the Flavonoid Pilloin Isolated from Marrubium cylleneum on Mitogen-Induced Lymphocyte Transformation. Journal Pharmaceutical Biology. 2002.
Yun-Chen Tsai, et al. Pilloin, A Flavonoid Isolated From Aquilaria sinensis, Exhibits Anti-Inflammatory Activity In Vitro and In Vivo. Molecules. 2018 Dec 2;23(12):3177.