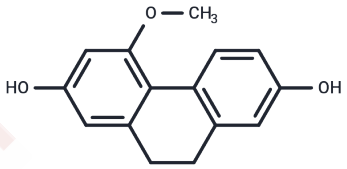
Data Sheet (Cat.No.TN3688)

TargetMol

Coelonin

Chemical Properties



CAS No. : 82344-82-9

Formula: C15H14O3

Molecular Weight: 242.27

Storage: Keep away from moisture,Keep away from direct sunlight
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	Coelonin is a dihydrophenanthrene compound with anti-inflammatory activity. Coelonin can inhibit the phosphorylation of PTEN induced by LPS, and inhibit the activation of NF-κB and the degradation of p27^Kip1 by negatively regulating PI3K/AKT signaling pathway. Coelonin can also inhibit the phosphorylation and degradation of IκBα, thus up-regulating the level of IκBα protein.
Targets(IC50)	NF-κB,Akt,IL Receptor
In vitro	Coelonin (2.5 μg/mL) significantly reduced the phosphorylation levels of NF-κB p65 and p105/50 [1]. Coelonin (0-5 μg/mL, 1.5 h) decreased the increase of PTEN, AKT and IκBa phosphorylation induced by LPS in a dose-dependent manner [1]. Coelonin (10 and 20 μg/ml) can alleviate the inflammation induced by particulate matter 2.5 (PM2.5) by reducing the production of inflammatory factors, including interleukin-6 (IL-6) and tumor necrosis factor -α (TNF-α) [2]. Coelonin's inhibition on the expression of IL-1β, IL-6 and TNF-α has nothing to do with PTEN, but the inhibition on the degradation of p27Kip1 leads to the cell cycle stagnation in G1 phase, which depends on PTEN[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1276 mL	20.6381 mL	41.2763 mL
5 mM	0.8255 mL	4.1276 mL	8.2553 mL
10 mM	0.4128 mL	2.0638 mL	4.1276 mL
50 mM	0.0826 mL	0.4128 mL	0.8255 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

Jiang F, et al. Coelonin, an Anti-Inflammation Active Component of Bletilla striata and Its Potential Mechanism. Int J Mol Sci. 2019 Sep 8;20(18):4422.

Cheng W, et al. Inhibition of inflammation-induced injury and cell migration by coelonin and militarine in PM2.5-exposed human lung alveolar epithelial A549 cells. Eur J Pharmacol. 2021 Apr 5;896:173931.