

## Rhein

## Chemical Properties

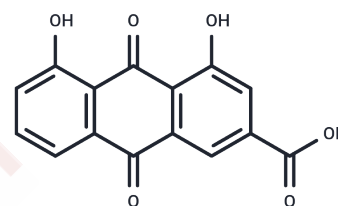
CAS No. : 478-43-3

Formula: C<sub>15</sub>H<sub>8</sub>O<sub>6</sub>

Molecular Weight: 284.22

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	Rhein (NSC 38629) is an anthraquinone compound extracted from Polygonaceae Rheum Officinale with anti-inflammation and antitumor activities.
Targets(IC50)	Apoptosis, Reactive Oxygen Species, Antibacterial, Autophagy, ROS
In vitro	In diabetic nephropathy-afflicted db/db mice, Rhein effectively ameliorates diabetic renal lesions and mitigates hyperlipidemia by reducing plasma cholesterol (Chol), triglycerides (TG), low-density lipoprotein cholesterol (LDL-C), ApoE, and renal tissue transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1).
In vivo	In chondrocytes, Rhein (35 $\mu$ M) effectively inhibits the synthesis of IL-1 $\beta$ in human osteoarthritis synovium and exerts effects in cartilage by reducing the amount of IL-1R and inhibiting the production of NO induced by IL-1 $\beta$ . Additionally, Rhein is capable of inducing apoptosis in acute promyelocytic leukemia cells (HL-60).

## Solubility Information

Solubility	DMSO: 5.45 mg/mL (19.18 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5184 mL	17.592 mL	35.184 mL
5 mM	0.7037 mL	3.5184 mL	7.0368 mL
10 mM	0.3518 mL	1.7592 mL	3.5184 mL
50 mM	0.0704 mL	0.3518 mL	0.7037 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

Martel-Pelletier J, et al. J Rheumatol, 1998, 25(4), 753-762.

Zhang H, Cai J, Li C, et al. Wogonin inhibits latent HIV-1 reactivation by downregulating histone crotonylation. Phytomedicine. 2023; 154855.

Pelletier JP, et al. J Rheumatol, 1998, 25(12), 2417-2424.

Lin S, et al. Arch Biochem Biophys, 2003, 418(2), 99-107.

Gao Q, et al. Planta Med, 2010, 76(1), 27-33.

Hou ML, et al. The Drug-Drug Effects of Rhein on the Pharmacokinetics and Pharmacodynamics of Clozapine in Rat Brain Extracellular Fluid by In Vivo Microdialysis. J Pharmacol Exp Ther. 2015 Oct;355(1):125-34.

Yan-Xi Zhou, et al. Rhein: A Review of Pharmacological Activities. Evid Based Complement Alternat Med. 2015; 2015: 578107.

**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