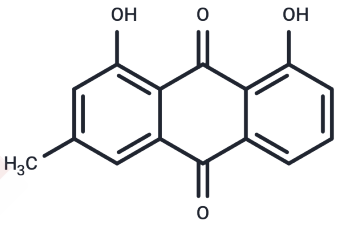
Data Sheet (Cat.No.T2995)

TargetMol

Chrysophanol

Chemical Properties



CAS No. : 481-74-3

Formula: C15H10O4

Molecular Weight: 254.24

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Chrysophanol (Turkey Rhubarb) is an EGFR/mTOR pathway inhibitor, which can be found in rhubarb, and sorrel.
Targets(IC50)	EGFR
In vivo	Chrysophanol (CA) has been shown to counteract obesity in C57BL/6 mice induced by a high-fat diet (HFD). Through in vivo studies involving male C57BL/6J mice, it was discovered that Chrysophanol significantly mitigates weight gain associated with HFD consumption. Specifically, mice subsisting on an HFD without Chrysophanol treatment experienced a weight increase of 23.92 ± 1.74 g over 16 weeks. In contrast, mice treated with Chrysophanol exhibited a markedly lower weight gain of 16.72 ± 2 g in the same period, underscoring Chrysophanol's potential as an effective intervention against HFD-induced obesity.
Cell Research	Chrysophanol (Chrysophanic Acid) is dissolved in DMSO and stored, and then diluted with appropriate medium before use[1]. The cells are seeded at 5×103 cells/mL in 96-well microplates and allowed to attach for 24 h. Chrysophanol (20, 50, 80 and 120 μM) is added to the medium at various concentrations up to 120 μM and for different durations. After treatment, cell cytotoxicity and/or proliferation is assessed by a Cell Counting Kit-8 (CCK-8). Briefly, highly water-soluble tetrazolium salt, WST-8, produces an orange colored water-soluble product, formazan. The amount of formazan dye generated by dehydrogenases in cells is directly proportional to the number of living cells.CCK-8 (10 μL) is added to each well and incubated for 3 h at 37°C, then cell proliferation and cytotoxicity are assessed by measuring the absorbance at 450 nm using a microplate reader.Three replicated wells are used for each experimental condition[1].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 1.64 mg/mL (6.45 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9333 mL	19.6665 mL	39.3329 mL
5 mM	0.7867 mL	3.9333 mL	7.8666 mL
10 mM	0.3933 mL	1.9666 mL	3.9333 mL
50 mM	0.0787 mL	0.3933 mL	0.7867 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.

Reference

Lee MS, et al. Phytother Res, 2011, 25(6), 833-837.
Zhang H, Cai J, Li C, et al.Wogonin inhibits latent HIV-1 reactivation by downregulating histone crotonylation. Phytomedicine.2023: 154855.
Semple SJ, et al. Antiviral Res, 2001, 49(3), 169-178.
Lim H, et al. Chrysophanic Acid Suppresses Adipogenesis and Induces Thermogenesis by Activating AMP-Activated Protein Kinase Alpha In vivo and In vitro. Front Pharmacol. 2016 Dec 8;7:476.