Data Sheet (Cat.No.TN7224)

TargetMol

2,2'-Dihydroxy chalcone

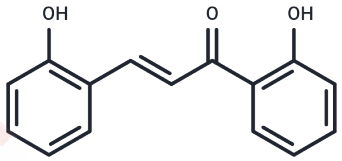
Chemical Properties

CAS No. : 15131-80-3

Formula: C15H12O3

Molecular Weight: 240.25

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	2,2'-Dihydroxy chalcone is a potent inhibitor of β-glucuronidase (IC50=1.6±0.2 μM) and lysozyme (IC50=1.4±0.2 μM) release from rat neutrophils stimulated with fMLP/CB.2,2'-Dihydroxy chalcone has inhibitory activity against Escherichia coli, Shigella fowleri, Staphylococcus albicans and Staphylococcus aureus.
Targets(IC50)	Apoptosis,Antibacterial,Autophagy,GST
In vitro	2,2'-dihydroxychalcone (DHC) (1-50 microM) caused a dose-dependent reduction in viability, a concomitant increase in apoptosis in PC3 cells at 72 h, and a decrease in clonogenic survival at 24 h treatment. DHC was considerably more potent than fisetin in these cytotoxicity assays. The mechanism of accelerated cellular senescence was not activated by DHC in PC3 or lymph node carcinoma of the prostate (LNCaP) cells.[1]

Solubility Information

Solubility	DMSO: 60 mg/mL (249.74 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1623 mL	20.8117 mL	41.6233 mL
5 mM	0.8325 mL	4.1623 mL	8.3247 mL
10 mM	0.4162 mL	2.0812 mL	4.1623 mL
50 mM	0.0832 mL	0.4162 mL	0.8325 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

Haddad AQ, et al. Antiproliferative mechanisms of the flavonoids 2,2'-dihydroxychalcone and fisetin in human prostate cancer cells. Nutr Cancer. 2010;62(5):668-68

Goh K, et al. 2,2'-Dihydroxychalcone, a glutathione transferase inhibitor, sensitises human colon adenocarcinoma cells to chlorambucil and melphalan, but not to actinomycin D. Mol Med Rep. 2008;1(4):575-579.

Pruitt R, et al. Radiosensitization of cancer cells by hydroxychalcones. Bioorg Med Chem Lett. 2010;20(20):5997-6000.

Park H, et al. Hydroxylated Chalcones as Aryl Hydrocarbon Receptor Agonists: Structure-Activity Effects. Toxicol Sci. 2021;180(1):148-159.