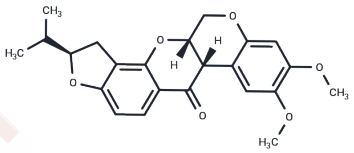
Data Sheet (Cat.No.TN1586)

TargetMol

Dihydrorotenone

Chemical Properties



CAS No. : 6659-45-6

Formula: C23H24O6

Molecular Weight: 396.43

Storage: Keep away from direct sunlight,Keep away from moisture,Store at low temperature
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	Dihydrorotenone is a potent mitochondrial inhibitor and probably induces Parkinsonian syndrome.
Targets(IC50)	Apoptosis,Mitochondrial Metabolism,p38 MAPK
In vitro	Dihydrorotenone arrested human plasma cancer cells at the G0/G1 phase of the cell cycle. Dihydrorotenone inhibited cyclin D2 transactivation, thus inhibiting its mRNA expression. In addition, Dihydrorotenone upregulated the cell cycle repressors p21 and p53. Dihydrorotenone also increased the phosphorylation level of p53, suggesting the upregulated transactivation function of p53, which was confirmed by the induction of p21, a substrate of activated p53. Moreover, Dihydrorotenone downregulated AKT and ERK phosphorylation, an incentive of cell cycle progression.

Solubility Information

Solubility	DMSO: 27.5 mg/mL (69.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (5.05 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5225 mL	12.6126 mL	25.2251 mL
5 mM	0.5045 mL	2.5225 mL	5.045 mL
10 mM	0.2523 mL	1.2613 mL	2.5225 mL
50 mM	0.0505 mL	0.2523 mL	0.5045 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

Natural pesticide dihydrorotenone arrests human plasma cancer cells at the G0/G1 phase of the cell cycle.J Biochem Mol Toxicol. 2014 May;28(5):232-8.