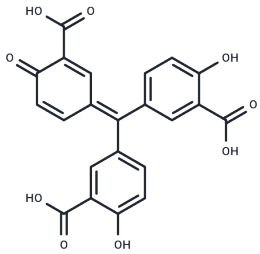
Data Sheet (Cat.No.T8333)

TargetMol

Aurintricarboxylic acid

Chemical Properties



CAS No. : 4431-00-9

Formula: C22H14O9

Molecular Weight: 422.34

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	Aurintricarboxylic acid (NSC-4056) is a strong inhibitor of topoisomerases and other nucleases. It is a potent inhibitor of ribonuclease and topoisomerase II by preventing the binding of the nucleic acid to the enzyme.
Targets(IC50)	Apoptosis,Influenza Virus,P2X Receptor,Topoisomerase,MicroRNA
In vitro	Aurintricarboxylic acid (ATA) is a known Stp1 inhibitor with an IC50 of 1.03 μM[1].

Solubility Information

Solubility	DMSO: 125 mg/mL (295.97 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (9.47 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	2.3678 mL	11.8388 mL	23.6776 mL
5 mM	0.4736 mL	2.3678 mL	4.7355 mL
10 mM	0.2368 mL	1.1839 mL	2.3678 mL
50 mM	0.0474 mL	0.2368 mL	0.4736 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

Liu T T , Yang T , Gao M N , et al. The inhibitory mechanism of aurintricarboxylic acid targeting serine/threonine phosphatase Stp1 in Staphylococcus aureus: insights from molecular dynamics simulations[J]. Acta Pharmacologica Sinica, 2019.

Zhan P, Li Z, Liu X. Cosalane and its analogues: a unique class of anti-HIV agents. Mini Rev Med Chem. 2010 Sep; 10(10):966-76. Review. PubMed PMID: 20540707.

De Clercq E. The next ten stories on antiviral drug discovery (part E): advents, advances, and adventures. Med Res Rev. 2011 Jan;31(1):118-60. doi: 10.1002/med.20179. Review. PubMed PMID: 19844936.

Clemetson KJ, Clemetson JM. Platelet GPIb complex as a target for anti-thrombotic drug development. Thromb Haemost. 2008 Mar;99(3):473-9. doi: 10.1160/TH07-12-0718. Review. PubMed PMID: 18327394.