

Copper Sulfate Pentahydrate

Chemical Properties

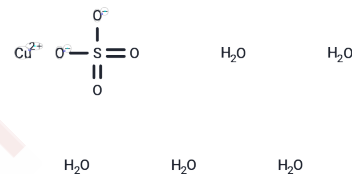
CAS No. : 7758-99-8

Formula: CuH10O9S

Molecular Weight: 249.69

Storage: Store at RT

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Copper Sulfate Pentahydrate has a variety of antibacterial activities, and has inhibitory activity against Staphylococcus aureus, Escherichia coli, Pseudomonas aeruginosa, Candida albicans, etc.
Targets(IC50)	Caspase,Antibacterial,MyD88,ROS
In vitro	<p>Methods: Human intestinal epithelial cell lines HCT116, HT-29, and SW480 were treated with Copper Sulfate Pentahydrate at concentrations ranging from 6.25 to 200 mg/mL for 24 hours to evaluate its effect on cell viability.</p> <p>Results: Copper Sulfate Pentahydrate significantly reduced the viability of HCT116, HT-29, and SW480 cells within the tested concentration range.[1]</p>
In vivo	<p>Methods: Primary hepatocytes of Epinephelus coioides were treated with Copper Sulfate Pentahydrate at a concentration of 2.4 mg Cu/L for 24 hours to evaluate its effects on apoptosis and necrosis.</p> <p>Results: Copper Sulfate Pentahydrate significantly increased the percentages of apoptosis and necrosis in primary hepatocytes and elevated the activities of caspase-3, caspase-8, and caspase-9. [2]</p>

Solubility Information

Solubility	H2O: 40 mg/mL (160.2 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.005 mL	20.0248 mL	40.0497 mL
5 mM	0.801 mL	4.005 mL	8.0099 mL
10 mM	0.4005 mL	2.0025 mL	4.005 mL
50 mM	0.0801 mL	0.4005 mL	0.801 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

Feyzi A, et al. Copper Sulfate Pentahydrate reduced epithelial cytotoxicity induced by lipopolysaccharide from enterogenic bacteria. *Biomed Pharmacother.* 2017 May;89:454-461.

Wang T, et al. Copper Nanoparticles and Copper Sulphate Induced Cytotoxicity in Hepatocyte Primary Cultures of *Epinephelus coioides*. *PLoS One.* 2016 Feb 18;11(2):e0149484.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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