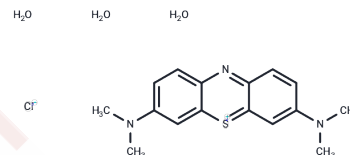


Methylene Blue trihydrate

Chemical Properties

CAS No. :	7220-79-3
Formula:	C ₁₆ H ₂₄ ClN ₃ O ₃ S
Molecular Weight:	373.9
Storage:	Store at low temperature, Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Methylene Blue trihydrate (Basic blue 9) is a compound consisting of dark green crystals or crystalline powder, having a bronze-like luster. Solutions in water or alcohol have a deep blue color. Methylene Blue trihydrate is used as a bacteriologic stain and as an indicator. It inhibits soluble guanylyl cyclase and has been used to treat cyanide poisoning and to lower levels of methemoglobin. It also inhibits tau filament formation (IC ₅₀ : 1.9 μM).
Targets(IC ₅₀)	Microtubule Associated, NO Synthase, Parasite, Guanylate cyclase, Monoamine Oxidase
Cell Research	<p>Instructions</p> <ol style="list-style-type: none"> Cell and tissue staining <ol style="list-style-type: none"> Dissolve methylene blue in an appropriate solvent (such as water or buffer) to prepare a dye solution of a certain concentration. Soak the cells or tissue sections in the dye solution, usually the staining time is several minutes. After cleaning, observe the cell structure or distribution of target molecules under a microscope. As MAO-A inhibitor and antidepressant and anti-anxiety drugs <p>Methods: Through animal models or cell culture systems, the regulatory effect on neurotransmitters was studied.</p> Research on neurodegenerative diseases <p>Methods: Through animal models and cell models, its neuroprotective effects were studied.</p> <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>

Solubility Information

Solubility	DMSO: 3.75 mg/mL (10.03 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	2.6745 mL	13.3726 mL	26.7451 mL
5 mM	0.5349 mL	2.6745 mL	5.349 mL
10 mM	0.2675 mL	1.3373 mL	2.6745 mL
50 mM	0.0535 mL	0.2675 mL	0.5349 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

Rager T, et al. Phys Chem Chem Phys. 2012 Jun 14;14(22):8074-82.

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