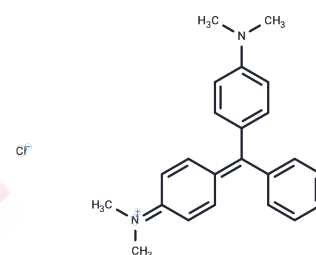


Malachite green

Chemical Properties

CAS No. :	569-64-2
Formula:	C ₂₃ H ₂₅ ClN ₂
Molecular Weight:	364.91
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Malachite green (Solid Green Crystals O) is an N-methylated diaminotriphenylmethane dye used for coloring.
Targets(IC50)	Others
Cell Research	<p>Instructions</p> <p>I. Solution preparation:</p> <ol style="list-style-type: none"> 1. Preparation of storage solution: Dissolve Safranin O in deionized water to prepare a 0.1%-1% (w/v) stock solution. If a higher solubility is required, a small amount of ethanol can be added to help dissolve. Note: The stock solution should be stored in a dark place and refrigerated to avoid dye degradation. 2. Preparation of working solution: Dilute the storage solution to the required working solution according to experimental requirements. <p>II. Biological tissue staining</p> <ol style="list-style-type: none"> 1. Sample fixation: Fix the tissue sample in formalin solution, dehydrate and embed. After slicing, prepare the tissue slices for staining. 2. Staining steps: <ol style="list-style-type: none"> 1) Place the tissue slices in Safranin O staining solution. The staining time is adjusted according to the sample type, generally 2-5 minutes. 2) If contrast staining is required, Fast Green or other suitable dyes can be used. 3) Use 70%-95% ethanol for graded decolorization until the dye in non-target areas is removed. 4) Sealing: Seal the slide with neutral gum or other suitable sealing agent to prevent the sample from drying or dye loss. 5) Microscopic observation: Use an optical microscope to observe the staining results: Cell nuclei and cartilage matrix will appear red. Collagen fibers, extracellular matrix, etc. will appear green (if Fast Green is used as a contrast dye). <p>Precautions:</p> <ol style="list-style-type: none"> 1) Operation safety: Wear gloves and goggles when using to avoid contact of dye with skin or eyes. 2) Dye storage: Safranin O is light-sensitive and should be stored in a dark place and

Cell Research	refrigerated. Ensure that there is no precipitation in the dye before use. 3) Contrast staining: Select a suitable contrast stain (such as Fast Green) according to the purpose of the experiment. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.
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Solubility Information

Solubility	DMSO: 125 mg/mL (342.55 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (27.4 mM), Solution. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7404 mL	13.702 mL	27.404 mL
5 mM	0.5481 mL	2.7404 mL	5.4808 mL
10 mM	0.274 mL	1.3702 mL	2.7404 mL
50 mM	0.0548 mL	0.274 mL	0.5481 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, Gao X, Xin Y. Identification of an IKBKE inhibitor with antitumor activity in cancer cells overexpressing IKBKE. Cytokine. 2019 Apr;116:78-87.
- Takahashi S, et al. Reversible off-on fluorescence probe for hypoxia and imaging of hypoxia-normoxia cycles in live cells. J Am Chem Soc. 2012 Dec 5;134(48):19588-91.
- Fei X, Wu X, Dou YN, Sun K, Guo Q, Zhang L, Li S, Wei J, Huan Y, He X, Fei Z. TRIM22 orchestrates the proliferation of GBMs and the benefits of TMZ by coordinating the modification and degradation of RIG-I. Mol Ther Oncolytics. 2022 Aug 25;26:413-428.
- Uda RM, Yoshikawa Y, Kitaba M, Nishimoto N. Irradiation-induced fusion between giant vesicles and photoresponsive large unilamellar vesicles containing malachite green derivative. Colloids Surf B Biointerfaces. 2018 May 1;167:544-549. doi: 10.1016/j.colsurfb.2018.04.061. [Epub ahead of print] PubMed PMID: 29730576.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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