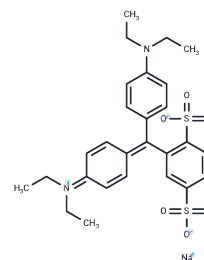


Isosulfan blue

Chemical Properties

CAS No. :	68238-36-8
Formula:	C ₂₇ H ₃₁ N ₂ NaO ₆ S ₂
Molecular Weight:	566.66
Storage:	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	Isosulfan blue is a blue dye utilized for identifying lymph vessels during lymphangiography and sentinel lymph node biopsies in breast cancer. However, Isosulfan blue may cause allergic reactions during breast cancer operations [1] [2].
Targets(IC50)	Others
In vitro	<p>Lymphangiography</p> <ol style="list-style-type: none"> Material preparation: <ol style="list-style-type: none"> Isosulfan blue solution. Fluorescence microscope or surgical visualization equipment: helps observe the distribution of dye. Steps: <ol style="list-style-type: none"> Dye injection: Inject Isosulfan blue into the area of interest (such as breast tissue) as needed. 0.5-1.0 mL of 1% solution is usually used in the experiment, and the specific amount depends on the scale of the experiment and the number of samples. Observe the direction of lymphatic flow: The dye will flow into the lymphatic vessels with the lymph, and its flow path can be observed through medical imaging or visualization equipment. <p>Precautions:</p> <ol style="list-style-type: none"> Allergic reaction: Although Isosulfan blue is a common lymphangiography dye, there is still a risk of allergic reaction, including rash, dyspnea, etc. Therefore, the patient's allergy history needs to be evaluated before use. Avoid overdose: In order to avoid the accumulation of excessive dye, multiple injections in the same patient are generally not recommended, and the amount of dye should be controlled within an appropriate range. Storage and handling: Isosulfan blue should be stored in a cool and dry place. When using, ensure that the solution is free of contamination. <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>

Solubility Information

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Solubility	DMSO: 83.33 mg/mL (147.05 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: 3.3 mg/mL (5.82 mM),Sonication is recommended. <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	1.7647 mL	8.8236 mL	17.6473 mL
5 mM	0.3529 mL	1.7647 mL	3.5295 mL
10 mM	0.1765 mL	0.8824 mL	1.7647 mL
50 mM	0.0353 mL	0.1765 mL	0.3529 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

Agilinko J, et al. Adverse Effects of Intraparenchymal and Peritumoral Application of Isosulfan Blue Dye in Sentinel Lymph Node Mapping in Breast Cancer: A Systematic Review and Meta-Analysis. *Eur J Breast Health*. 2025 Jan 1;21(1):1-8.

Bongkodmas P, et al. New concept in selecting blue dye injection site effect on clinical outcome of early-stage breast cancer patients: a retrospective cohort. *World J Surg Oncol*. 2024 Aug 3;22(1):207.

Johnston ME 2nd, et al. Fluorescent-guided surgery and the use of indocyanine green sentinel lymph node mapping in the pediatric and young adult oncology population. *Cancer*. 2023 Dec 15;129(24):3962-3970.

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