

## Sudan III

## Chemical Properties

CAS No. : 85-86-9

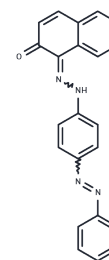
Formula: C<sub>22</sub>H<sub>16</sub>N<sub>4</sub>O

Molecular Weight: 352.39

Keep away from direct sunlight

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	Sudan III (Solvent Red 23) is a solvent dye used to color nonpolar substances.
Targets(IC50)	Others
In vitro	<p>Tissue lipid staining</p> <ol style="list-style-type: none"> <li>Material preparation: <ol style="list-style-type: none"> <li>1) Sudan III working solution: Prepare 0.5–1% Sudan III in ethanol or ethanol-acetone mixture (70% ethanol and 30% acetone).</li> <li>2) Sections: frozen sections or paraffin sections.</li> <li>3) Distilled water and hematoxylin (optional, as contrast stain).</li> </ol> </li> <li>Staining steps: <ol style="list-style-type: none"> <li>1) Tissue fixation and preparation</li> <li>2) Fix tissue with 10% neutral buffered formaldehyde (no dewaxing is required for frozen sections).</li> <li>3) Prepare sections using a cryostat (recommended thickness 5–10 μm).</li> </ol> </li> <li>Staining <ol style="list-style-type: none"> <li>1) Immerse sections in Sudan III working solution and stain for 5–15 minutes (time can be adjusted according to lipid content).</li> <li>2) Wash off excess dye with distilled water.</li> </ol> </li> <li>Contrast staining (optional): Nuclei can be stained with hematoxylin, and rinse with water after staining for 1–2 minutes.</li> <li>Sealing: Use a sealing medium containing glycerol to seal the slides. Avoid using a sealing medium containing organic solvents to avoid discoloration.</li> <li>Microscope observation: Use an optical microscope to observe the orange-red staining signal of lipids.</li> </ol> <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>

## Solubility Information

## A DRUG SCREENING EXPERT

Solubility	DMSO: 1.76 mg/mL (4.99 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	2.8378 mL	14.1888 mL	28.3776 mL
5 mM	0.5676 mL	2.8378 mL	5.6755 mL
10 mM	0.2838 mL	1.4189 mL	2.8378 mL
50 mM	0.0568 mL	0.2838 mL	0.5676 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

Zhang H, Yang Y, Wang Y. Comprehensive Investigations About the Binding Interactions of Sudan Dyes with DNA by Spectroscopy and Docking Methods. *J Fluoresc.* 2025 Jan 8.

Azer SA, Sankararaman S. Steatorrhea. 2023 May 16. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. PMID: 31082099.

Heikkinen J, Palosaari S, Lehenkari P. Cigarette smoke extract decreases human bone marrow mesenchymal stromal cell adipogenic differentiation. *Toxicol In Vitro.* 2024 Dec;101:105949.

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