

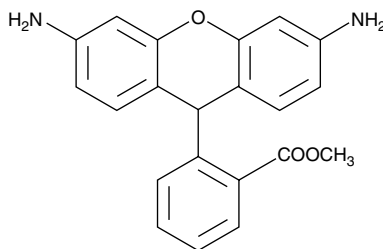
Product Information



Dihydrorhodamine 123

Item No. 85100

CAS Registry No.: 109244-58-8
Formal Name: 2-(3,6-diamino-9H-xanthen-9-yl)-benzoic acid, methyl ester
Synonym: DHR 123
MF: C₂₁H₁₈N₂O₃
FW: 346.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: 223, 289 nm



Laboratory Procedures

For long term storage, we suggest that Dihydrorhodamine 123 (DHR 123) be stored as supplied at -20°C. It should be stable for at least two years.

DHR 123 is supplied as a crystalline solid. A stock solution may be made by dissolving the DHR 123 in the solvent of choice. DHR 123 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of DHR 123 in these solvents is approximately 10 mg/ml.

DHR 123 is only sparingly soluble in aqueous solutions, it is less than 20 µg/ml in PBS (pH 7.2). Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

DHR 123 is a cell-permeable fluorogenic probe that is used as an indicator of intracellular peroxynitrite formation.¹ It is oxidized by peroxynitrite to the highly fluorescent product rhodamine *in vitro*. Neither nitric oxide, superoxide, nor hydrogen peroxide alone appear to oxidize DHR 123.¹ Formation of rhodamine can be monitored by fluorescence spectroscopy using excitation and emission wavelengths of 500 and 536 nm, respectively, or by absorbance spectroscopy at 500 nm ($\epsilon = 78,800 \text{ M}^{-1}\text{cm}^{-1}$).¹⁻³ DHR 123 has been used to investigate reactive oxygen intermediates produced by endothelial cells, eosinophils, and reactive microglia.⁴⁻⁶

References

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Related Products

For a list of related products please visit: www.caymanchem.com/catalog/85100

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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