

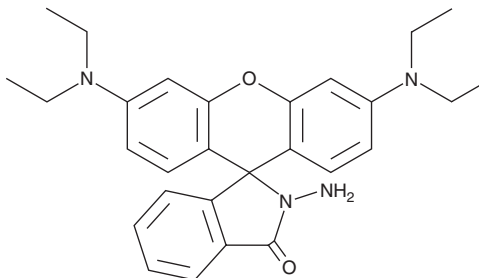
PRODUCT INFORMATION



Rhodamine B hydrazide

Item No. 23133

CAS Registry No.: 74317-53-6
Formal Name: 2-amino-3',6'-bis(diethylamino)-spiro[1H-isoindole-1,9'-(9H)-xanthen]-3(2H)-one
MF: C₂₈H₃₂N₄O₂
FW: 456.6
Purity: ≥98%
UV/Vis.: λ_{max}: 239, 274, 314 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Rhodamine B hydrazide is supplied as a crystalline solid. A stock solution may be made by dissolving the rhodamine B hydrazide in the solvent of choice, which should be purged with an inert gas. Rhodamine B hydrazide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of rhodamine B hydrazide in these solvents is approximately 0.1, 20, and 30 mg/ml, respectively.

Rhodamine B hydrazide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, rhodamine B hydrazide should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Rhodamine B hydrazide has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Rhodamine B hydrazide is a water-soluble fluorescent probe with excitation/emission spectra of 510/578 nm, respectively.¹ It has been used for the detection of copper, peroxyxynitrite, nitric oxide, hydrogen peroxide, glucose, diacetyl, and hemoglobin.¹⁻⁶

References

1. Dujols, V., Ford, F., and Czarnik, A.W. A long-wavelength fluorescent chemodosimeter selective for Cu(II) ion in water. *J. Am. Chem. Soc.* **119(31)**, 7386-7387 (1997).
2. Yang, X.-F., Guo, X.-Q., and Zaho, Y.-B. Development of a novel rhodamine-type fluorescent probe to determine peroxyxynitrite. *Talanta* **57(5)**, 883-890 (2002).
3. Wu, C.M., Chen, Y.H., Dyananda, K., et al. Sensitivity evaluation of rhodamine B hydrazide towards nitric oxide and its application for macrophage cells imaging. *Anal. Chim. Acta* **708(1-2)**, 141-148 (2011).
4. Chen, X. and Jianli, Z. Application of rhodamine B hydrazide as a new fluorogenic indicator in the highly sensitive determination of hydrogen peroxide and glucose based on the catalytic effect of iron(III)-tetrasulfonato-phthalocyanine. *Microchim. Acta.* **157(3-4)**, 133-138 (2007).
5. Li, X., Duerkop, A., and Wolfbeis, O.S. A fluorescent probe for diacetyl detection. *J. Fluoresc.* **19(4)**, 601-606 (2009).
6. Yang, X.-F., Guo, X.-Q., and Li, H. Fluorimetric determination of hemoglobin using spiro form rhodamine B hydrazide in a micellar medium. *Talanta* **61(4)**, 439-445 (2003).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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