

PRODUCT INFORMATION

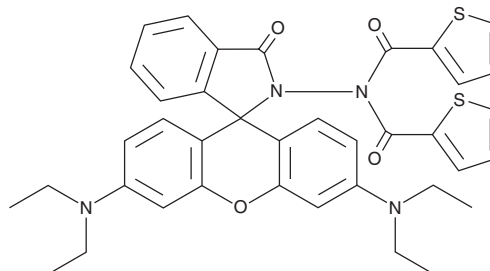


Rhodamine dithenoyl hydrazide

Item No. 31095

CAS Registry No.: 2740257-94-5
Formal Name: N-(3',6'-bis(diethylamino)-3-oxospiro[isindoline-1,9'-xanthen]-2-yl)-N-(thiophene-2-carbonyl)thiophene-2-carboxamide

Synonym: Probe 1
MF: C₃₈H₃₆N₄O₄S₂
FW: 676.8
Purity: ≥98%
UV/Vis.: λ_{max}: 235, 273 nm
Ex./Em. Max: 534/550-700 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 dithenoyl hydrazide is supplied as a crystalline solid. A stock solution may be made by dissolving the rhodamine dithenoyl hydrazide in the solvent of choice, which should be purged with an inert gas. Rhodamine dithenoyl hydrazide is soluble in DMSO and dimethyl formamide (DMF). The solubility of rhodamine dithenoyl hydrazide in DMSO is approximately 15 mg/ml and 30 mg/ml in DMF.

Description

Rhodamine dithenoyl hydrazide is an N,N-dithenoyl-rhodamine based fluorescent and colorimetric probe for the detection of ferric iron.¹ Upon iron binding, rhodamine dithenoyl hydrazide fluoresces and displays excitation/emission maxima of 534/550-700 nm, respectively. It is selective for ferric iron, emitting fluorescence at 588 nm in the presence of ferric iron but not ferrous iron or in a panel of 11 additional cations and 10 anions. Rhodamine dithenoyl hydrazide also exhibits a visual shift from colorless to pink upon addition of ferric iron to aqueous solutions or live cells, which can be detected colorimetrically.

Reference

1. Liu, Y., Zhao, C., Zhao, X., *et al.* A selective N,N-dithenoyl-rhodamine based fluorescent probe for Fe³⁺ detection in aqueous and living cells. *J. Environ. Sci. (China)* **90**, 180-188 (2020).

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.

WARRANTY AND LIMITATION OF REMEDY

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