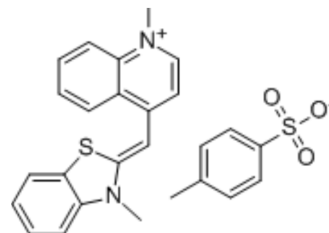


Thiazole Orange

Cat. No.:	HY-D0150
CAS No.:	107091-89-4
Molecular Formula:	C ₂₆ H ₂₄ N ₂ O ₃ S ₂
Molecular Weight:	476.61
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (52.45 mM; Need ultrasonic)
 MEOH : 25 mg/mL (52.45 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		2.0982 mL	10.4908 mL	20.9815 mL
	5 mM		0.4196 mL	2.0982 mL	4.1963 mL
	10 mM		0.2098 mL	1.0491 mL	2.0982 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 1.25 mg/mL (2.62 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 1.25 mg/mL (2.62 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Thiazole Orange is an asymmetric anthocyanin dye that can be coupled with oligonucleotides (ONs) to prepare fluorescent hybridization probes. Thiazole Orange can be used for reticulocyte analysis. λ_{Ex}/λ_{Em} (including DNA) of Thiazole Orange =510/527 nm^{[1][2][3]}.

CUSTOMER VALIDATION

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- School of Chemistry and Molecular Bioscience, University of Wollongong. 2019 Oct.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. O'Neil CS, et al. DNA Electrophoresis Using Thiazole Orange Instead of Ethidium Bromide or Alternative Dyes. J Vis Exp. 2019 Mar 31;(145)
- [2]. Linda G. Le, et al. Thiazole Orange: A New Dye for Reticulocyte Analysis. cytometry 7:508-517 (1986)
- [3]. Piotr Klimkowski, et al. Design of thiazole orange oligonucleotide probes for detection of DNA and RNA by fluorescence and duplex melting. Org Biomol Chem. 2019 Jun 28; 17(24): 5943-5950.
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Caution: Product has not been fully validated for medical applications. For research use only.

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