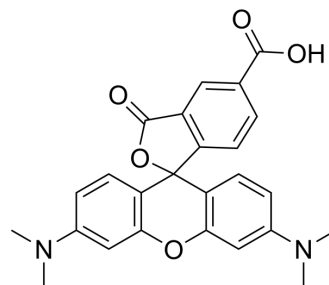


5-Carboxytetramethylrhodamine

Cat. No.:	HY-D0941
CAS No.:	150322-05-7
Molecular Formula:	C ₂₅ H ₂₂ N ₂ O ₅
Molecular Weight:	430.45
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 12.5 mg/mL (29.04 mM); ultrasonic and warming and heat to 60°C				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.3232 mL	11.6158 mL	23.2315 mL
		5 mM	0.4646 mL	2.3232 mL	4.6463 mL
		10 mM	0.2323 mL	1.1616 mL	2.3232 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.25 mg/mL (2.90 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.25 mg/mL (2.90 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	5-Carboxytetramethylrhodamine can be used as a fluorescent probe of nucleic acids and proteins. 5-Carboxytetramethylrhodamine displays excitation maxima of 558 nm and an emission maximum of 586 nm ^{[1][2][3]} .
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REFERENCES

- [1]. Lyu Z, et al. Steric-Free Bioorthogonal Labeling of Acetylation Substrates Based on a Fluorine-Thiol Displacement Reaction. J Am Chem Soc. 2021 Jan 27;143(3):1341-1347.
- [2]. Bucevičius J, et al. Rhodamine-Hoechst positional isomers for highly efficient staining of heterochromatin. Chem Sci. 2018 Dec 12;10(7):1962-1970.

[3]. Lyttle MH, et al. A tetramethyl rhodamine (Tamra) phosphoramidite facilitates solid-phase-supported synthesis of 5'-Tamra DNA. J Org Chem. 2000 Dec 29;65(26):9033-8.

Caution: Product has not been fully validated for medical applications. For research use only.

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