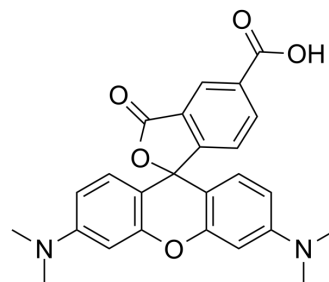


## 5-Carboxytetramethylrhodamine

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



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	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
	<b>Preparing Stock Solutions</b>	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.					
<b>In Vivo</b>	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

<b>Description</b>	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 <sup>[1][2][3]</sup> .
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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.

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[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.

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

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