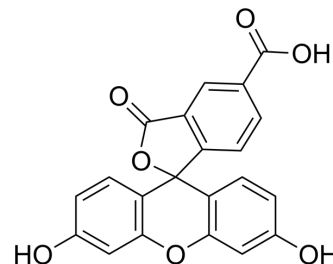


5-FAM

Cat. No.:	HY-66022
CAS No.:	76823-03-5
Molecular Formula:	C ₂₁ H ₁₂ O ₇
Molecular Weight:	376.32
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 : ≥ 31 mg/mL (82.38 mM)
 H₂O : < 0.1 mg/mL (insoluble)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
	1 mM		2.6573 mL	13.2866 mL	26.5731 mL
	5 mM		0.5315 mL	2.6573 mL	5.3146 mL
	10 mM		0.2657 mL	1.3287 mL	2.6573 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: ≥ 2.5 mg/mL (6.64 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (6.64 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

5-FAM (5-Carboxyfluorescein) is a green fluorescent reagent used for in situ labeling peptides, proteins and nucleotides. 5-FAM is a single isomer with Ex/Em of 490 nm/520 nm^[1].

In Vitro

5-FAM contains a carboxylic acid that can be used to react with primary amines via carbodiimide activation of the carboxylic acid. Fluorescein is the most common fluorescent derivatization reagent for labeling biomolecules. In addition to its relatively high absorptivity, excellent fluorescence quantum yield, and good water solubility, fluorescein has an excitation maximum that closely matches the 488 nm spectral line of the argon-ion laser^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Bone. 2023 Jan 13;116677.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Jungmi Lee, et al. Peptide substrate-based inkjet printing high-throughput MMP-9 anticancer assay using fluorescence resonance energy transfer (FRET). Sens Actuators B Chem. 2018 Mar;256:1093-1099.

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

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