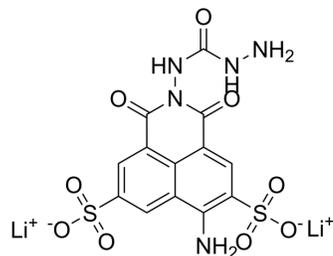


Lucifer Yellow CH dilithium salt

Cat. No.:	HY-128692
CAS No.:	67769-47-5
Molecular Formula:	C ₁₃ H ₉ Li ₂ N ₅ O ₉ S ₂
Molecular Weight:	457.25
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	H ₂ O : 25 mg/mL (54.67 mM; ultrasonic and warming and heat to 60°C)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
	Preparing Stock Solutions	1 mM	2.1870 mL	10.9349 mL
	5 mM	0.4374 mL	2.1870 mL	
	10 mM	0.2187 mL	1.0935 mL	
	Please refer to the solubility information to select the appropriate solvent.			
In Vivo	1. Add each solvent one by one: PBS Solubility: 10 mg/mL (21.87 mM); Clear solution; Need ultrasonic			

BIOLOGICAL ACTIVITY

Description	Lucifer Yellow CH dilithium salt is a high-intensity fluorescent probe containing free hydrazyl groups. Lucifer Yellow CH can react with fatty aldehydes at room temperature. Lucifer Yellow CH serves as a biological tracer to monitor neuronal branching, regeneration, gap junction detection and characterization, and selective ablation of cells after aldehyde fixation. Lucifer yellow CH displays the maximum excitation/emission of 430 nm/540 nm, respectively ^{[1][2]} .
In Vitro	Preparation of Lucifer Yellow CH (dilithium salt) working solution 1 Preparation of the stock solution Dissolve Lucifer Yellow CH (dilithium salt) in DDH ₂ O to obtain 1 mg/mL of Lucifer Yellow CH (dilithium salt). Note: It is recommended to store the stock solution at -20°C -80°C away from light and avoid repetitive freeze-thaw cycles. 2. Preparation of Lucifer Yellow CH (dilithium salt) working solution. Dilute the stock solution in serum-free cell culture medium or PBS to obtain 0.5% of Lucifer Yellow CH (dilithium salt) working solution. Note: Please adjust the concentration of Lucifer Yellow CH (dilithium salt) working solution according to the actual situation.

Cell staining

1. Cell preparation:

For suspension cells: Centrifuge at 1000 g at 4°C for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time.

For adherent cells: Discard the cell culture medium, and add trypsin to dissociate cells to make a single-cell suspension.

Centrifuge at 1000 g at 4°C for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time.

2. Add 1 mL of Lucifer Yellow CH (dilithium salt) working solution, and then incubate at room temperature for 5-30 minutes.

3. Centrifuge at 400 g at 4°C for 3-4 minutes and then discard the supernatant.

4. Wash twice with PBS, 5 minutes each time.

5. Resuspend cells with serum-free cell culture medium or PBS, and then detect by fluorescence microscope or flow cytometer.

Precautions

1. It is recommended to store the stock solution at -20°C or -80°C away from light and avoid repetitive freeze-thaw cycles.

2. Please adjust the concentration of Lucifer Yellow CH (dilithium salt) working solution according to the actual situation.

3. This product is for R&D use only, not for drug, household, or other uses.

4. For your safety and health, please wear a lab coat and disposable gloves to operate.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Free Radic Biol Med. 2021 Dec 6;178:271-294.

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REFERENCES

[1]. Stewart WW. Functional connections between cells as revealed by dye-coupling with a highly fluorescent naphthalimide tracer. Cell. 1978 Jul;14(3):741-59.

[2]. Klein M, et al. Transport of lucifer yellow CH into plant vacuoles--evidence for direct energization of a sulphonated substance and implications for the design of new molecular probes. FEBS Lett. 1997 Dec 22;420(1):86-92.

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

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