Lucifer Yellow CH dipotassium salt

Cat. No.: HY-W127715

CAS No.: 71206-95-6

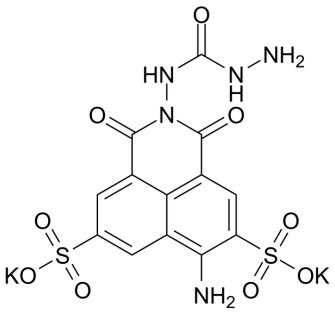
Molecular Formula: $C_{13}H_9K_2N_5O_9S_2$

Molecular Weight: 521.57

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 : 83.33 mg/mL (159.77 mM; Need ultrasonic)
H_2O : 5 mg/mL (9.59 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9173 mL	9.5864 mL	19.1729 mL
	5 mM	0.3835 mL	1.9173 mL	3.8346 mL
	10 mM	0.1917 mL	0.9586 mL	1.9173 mL

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

BIOLOGICAL ACTIVITY

Description

Lucifer Yellow CH dipotassium 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 (dipotassium) working solution
1 Preparation of the stock solution
Dissolve Lucifer Yellow CH (dipotassium) in DDH_2O to obtain 1 mg/mL of Lucifer Yellow CH (dipotassium).
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 (dipotassium) working solution.
Dilute the stock solution in serum-free cell culture medium or PBS to obtain 0.5% of Lucifer Yellow CH (dipotassium) working solution.
Note: Please adjust the concentration of Lucifer Yellow CH (dipotassium) 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 (dipotassium) 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□ or -80□ away from light and avoid repetitive freeze-thaw cycles.
2. Please adjust the concentration of Lucifer Yellow CH (dipotassium) 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]. Klein M, et al. Transport of lucifer yellow CH into plant vacuoles--evidence for direct energization of a sulphonatedsubstance and implications for the design of new molecular probes. FEBS Lett. 1997 Dec 22;420(1):86-92.

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