Product Datasheet

Lucifer Yellow CH dilithium salt

Catalog No. **BP-06851** · CAS **67769-47-5** · Form **free base** · Physical state **solid** · Color **Yellow to orange** · Version **1.0** · Revision **2026-11-16**

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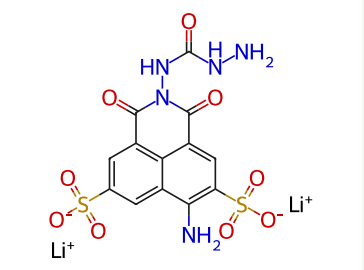
Target	Research area
Fluorescent Dye	**Neurological Disease**

Molecular formula	$C_{13}H_9Li_2N_5O_9S_2$
Molecular weight	**457.2510**

STRUCTURE



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 .

BIOLOGICAL ACTIVITY

In Vitro
Guide (The following is our recommended protocol. This protocol is only a guide and should be modified according to your specific needs).

1 Preparation of dye working solution [3]

1) Prepare 0.33 M lithium citrate solution containing 5% Lucifer Yellow CH as the working solution.

2 Specific staining steps

1) Insert a glass capillary microelectrode containing Lucifer Yellow CH working solution into the neuron and apply a constant hyperpolarizing current (0.2-0.5 nA) for 5-15 min for ion electrophoresis injection.

2) Simultaneously monitor the DC potential and action potential induced by intracellular stimulation. Only one cell is labeled per slice.

SOLUBILITY

soluble in H2O : 25 mg/mL (54.67 mM; ultrasonic and warming and heat to 60℃)

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 sulphonatedsubstance and implications for the design of new molecular probes. FEBS Lett. 1997 Dec 22;420(1):86-92.

[3]. Kawata M, et al. Immunohistochemical identification of Lucifer Yellow-labeled neurons in the rat supraoptic nucleus. Histochemistry. 1983;78(1):21-6.

Tel: +86 20 31130026 · Fax: +86 20 36822386 · tech@biochemprobe.com · www.biochemprobe.com
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