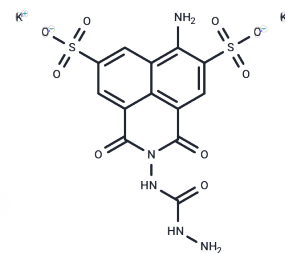


Lucifer Yellow CH dipotassium

Chemical Properties

CAS No. :	71206-95-6
Formula:	C13H9K2N5O9S2
Molecular Weight:	521.57
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Lucifer Yellow CH dipotassium is a water-soluble fluorescent tracer that labels endocytosis vesicles in cells. Lucifer Yellow CH dipotassium excites and emits at a maximum wavelength of 430 nm and 540 nm, respectively.
Targets(IC50)	Others
In vitro	<p>Lysosome Labeling Protocol[3]</p> <p>Step 1: Dye Uptake Seed Thio-macrophages or J774.2 cells onto coverslips. Incubate cells in medium containing Lucifer Yellow CH (1 mg/ml) for 1-2 hours.</p> <p>Step 2: Washing Wash the cells with ice-cold PD buffer (137 mM NaCl/3 mM KCl/7 mM phosphate, pH 7.4).</p> <p>Step 3: Dye Efflux Transfer the cells to M10F medium without Lucifer Yellow CH and continue incubation for 20-30 minutes at 37°C to allow dye efflux from the pinosomal/endosomal compartment.</p> <p>Step 4: Microscopic Observation Invert the coverslip onto a microscope slide with M10F (37°C) as the cell medium. Observe live cells using a Zeiss light microscope equipped with a 63x oil immersion lens (n.a. 1.4), and capture images with Kodak Tri-X film (ASA 400).</p> <p>Notes: This protocol is based on the reference literature. According to other sources and depending on the experimental goals, the working concentration of Lucifer Yellow CH may range from 0.05 to 1 mg/mL. Please adjust the concentration based on the specific requirements of your experiment.</p> <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>

Solubility Information

Solubility	H2O: 4 mg/mL (7.67 mM),Sonication is recommended. DMSO: 60 mg/mL (115.04 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0383 mL	0.1917 mL	0.3835 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- 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.
- Moye SL, et al. Visualizing Astrocyte Morphology Using Lucifer Yellow Iontophoresis. *J Vis Exp.* 2019 Sep 14;(151).
- Swanson J, et al. Tubular lysosome morphology and distribution within macrophages depend on the integrity of cytoplasmic microtubules. *Proc Natl Acad Sci U S A.* 1987 Apr;84(7):1921-5.

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