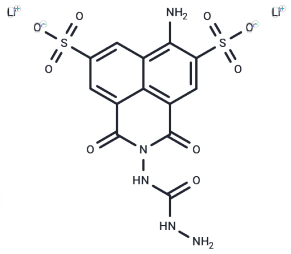
Data Sheet (Cat.No.T15790)

TargetMol

Lucifer Yellow CH dilithium salt

Chemical Properties



CAS No. : 67769-47-5

Formula: C13H9Li2N5O9S2

Molecular Weight: 457.25

Storage: Keep away from direct sunlight,Keep away from moisture,Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Lucifer Yellow CH dilithium salt is a fluorescent dye commonly utilized for selective staining and studying the photodynamic disruption of eukaryotic and subcellular structures.
Targets(IC50)	Others
Cell Research	I. For selective cell staining 1. Cell preparation: Use cells cultured in appropriate culture medium. Lucifer Yellow CH Dilithium Salt is usually used in vitro to stain live or fixed cells. 2. Dye solution preparation: Dissolve Lucifer Yellow CH Dilithium Salt in an appropriate buffer (usually phosphate buffered saline (PBS)) at a concentration of 10-100 μM, depending on the experimental requirements. 3. Staining process: Add the dye solution to the cell culture and incubate for 10-30 minutes, or adjust the time according to the experimental conditions. 4. Post-treatment: After staining, it is usually necessary to wash with PBS to remove unbound dye. 5. Fluorescence detection: Use a fluorescence microscope (excitation wavelength: 430 nm, emission wavelength: 535 nm) to observe the stained cells or subcellular structures. Lucifer Yellow shows strong fluorescence for easy observation. II. For photodynamic destruction studies 1. Cell treatment: After the cells are treated with Lucifer Yellow, irradiate the cells with light of an appropriate wavelength (usually UV or visible light). 2. Real-time imaging: Use fluorescence imaging technology to monitor the response of cells to photodynamic destruction and observe cell survival and structural changes. III. Used to study endocytosis and membrane permeability 1. Staining process: Add the dye to the cell culture and incubate for 15-30 minutes, the specific time is adjusted according to the type of research. 2. Fluorescence microscopy: After staining, observe the staining pattern inside the cell under a fluorescence microscope. IV. Used for neuronal communication and gap junction research 1. Neuronal staining: Lucifer Yellow can be used to mark neurons or other excitable cells to study their activity and communication. 2. Microscopic observation: Observe neuronal activity and intercellular communication under a fluorescence microscope.

Cell Research	The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	H2O: 20 mg/mL (43.74 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.187 mL	10.9349 mL	21.8699 mL
5 mM	0.4374 mL	2.187 mL	4.374 mL
10 mM	0.2187 mL	1.0935 mL	2.187 mL
50 mM	0.0437 mL	0.2187 mL	0.4374 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

Qi B, et al. Shock wave-induced ATP release from osteosarcoma U2OS cells promotes cellular uptake and cytotoxicity of methotrexate. J Exp Clin Cancer Res. 2016 Oct 3;35(1):161.
Stewart WW. Functional connections between cells as revealed by dye-coupling with a highly fluorescent naphthalimide tracer. Cell. 1978 Jul;14(3):741-59.
Takeuchi K, et al. Effect of superoxide derived from lucifer yellow CH on voltage-gated currents of mouse taste budcells. Chem Senses. 2008 Jun;33(5):425-32.