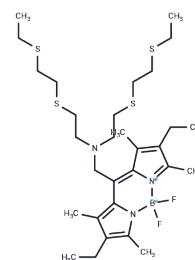


Coppersensor 1

Chemical Properties

CAS No. :	874748-20-6
Formula:	C ₃₀ H ₅₀ BF ₂ N ₃ S ₄
Molecular Weight:	629.81
Storage:	Keep away from direct sunlight, Store at low temperature 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	Coppersensor 1 (CS1) is a boron dipyrromethene-based fluorescent sensor for selective and sensitive detection of copper(I) ions (Cu ⁺) in biological samples. Coppersensor 1 can be imaged using any type of fluorescence microscope, including epifluorescence, confocal and multiphoton.
Targets(IC50)	Others
In vitro	Coppersensor 1 (1 mM) matches the absorption maximum of the apo and Cu ⁺ -bound probe with 543 nm excitation[1].
Cell Research	<p>Experimental method</p> <p>I. Solution preparation</p> <ol style="list-style-type: none"> 1. Preparation of stock solution: Take 0.63 mg Coppersensor 1 and dissolve it in 1 mL DMSO solvent to prepare 1 mM Coppersensor 1 stock solution. <p>II. Operation steps</p> <ol style="list-style-type: none"> 1. Cultivate cells to a suitable state. 2. One day before imaging, passage the cells and place them on 18 mm glass coverslips coated with poly-L-lysine (50 µg/mL). Adherent cells for imaging grow to 50-80% confluence. 3. Remove the cells from the incubator and transfer one coverslip to a 35 mm culture dish containing 3 mL PBS buffer. 4. Add 15 µL of 1 mM Coppersensor 1 stock solution to the culture dish to make the final concentration of the dye 5 µM and mix thoroughly. 5. Incubate in the dark at 25 or 37°C for 5-20 minutes. <p>c. Cells were imaged using a confocal microscope with an excitation wavelength of 543 nm.</p> <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5878 mL	7.9389 mL	15.8778 mL
5 mM	0.3176 mL	1.5878 mL	3.1756 mL
10 mM	0.1588 mL	0.7939 mL	1.5878 mL
50 mM	0.0318 mL	0.1588 mL	0.3176 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

Miller EW, et al. Preparation and use of Coppersensor-1, a synthetic fluorophore for live-cell copper imaging. Nat Protoc. 2006;1(2):824-7.

Zeng L, et al. A selective turn-on fluorescent sensor for imaging copper in living cells. J Am Chem Soc. 2006 Jan 11; 128(1):10-1.

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