

Fluo-4, pentapotassium salt

Chemical Properties

CAS No. :

Formula: C₃₆H₂₅F₂K₅N₂O₁₃

Molecular Weight: 927.08

Keep away from direct sunlight

Storage: 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	Calcium measurement is critical for numerous biological investigations. Fluorescent probes that show spectral responses upon binding calcium have enabled researchers to investigate changes in intracellular free calcium concentrations by using fluorescence microscopy, flow cytometry, fluorescence spectroscopy and fluorescence microplate readers. Fluo-3 and Fluo-4 are most commonly used among the visible light-excitable calcium indicators. Fluo-4, pentapotassium salt is an analog of fluo-3 with the two chlorine substituents replaced by fluorines, which results in increased fluorescence excitation at 488 nm and consequently higher fluorescence signal levels.
Targets(IC50)	Others
In vitro	<p>Prepare a 2 to 5 mM AM esters stock solution in high-quality, anhydrous DMSO. Prepare a working solution of 2 to 20 μM in the buffer. For most cell lines we recommend the final concentration of calcium indicators be 4-5 μM. Probenecid or sulfinpyrazone may be added to the dye working solution (final in well concentration will be 1-2.5 mM for probenecid, or 0.1 -0.25 mM for sulfinpyrazone) to reduce the leakage of the deesterified indicators. Add equal volume of the dye working solution into your cell plate. Incubate the plate at room temperature (20-120 minutes), then incubate the plate at room temperature for another 30 minutes. Replace the dye working solution with HHBS to remove excess probes. Run the experiments at Ex= 506nm, Em=526nm.</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	1.0787 mL	5.3933 mL	10.7866 mL
5 mM	0.2157 mL	1.0787 mL	2.1573 mL
10 mM	0.1079 mL	0.5393 mL	1.0787 mL
50 mM	0.0216 mL	0.1079 mL	0.2157 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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