

Fluo-4, pentapotassium salt

Chemical Properties

| | |
|-------------------|--|
| CAS No. : | TD0050 |
| Formula: | C36H25F2K5N2O13 |
| Molecular Weight: | 927.08 |
| Appearance: | no data available |
| Storage: | keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year |

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. |
| In vitro | Prepare a 2 to 5 mM AM esters stock solution in high-quality, anhydrous DMSO. Prepare a working solution of 2 to 20 μ M in the buffer. For most cell lines we recommend the final concentration of calcium indicators be 4-5 μ M. Probenecid or sulfapyrazone 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 sulfapyrazone) 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. |

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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