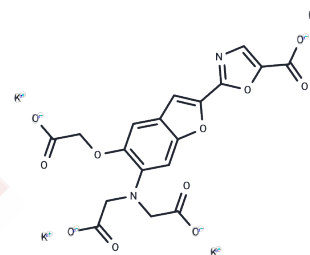


Mag-Fura-2 tetrapotassium

Chemical Properties

CAS No. : 132319-57-4
 Formula: C₁₈H₁₀K₄N₂O₁₁
 Molecular Weight: 586.67
 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	Mag-Fura-2 tetrapotassium, a UV-excitable fluorescent Mg ²⁺ /Ca ²⁺ indicator (Ex=334-360 nm, Em=510 nm), is used to determine Mg ²⁺ and Ca ²⁺ concentrations [1] [2].
Targets(IC50)	Others
In vitro	<p>Monitoring of Ca²⁺ release [1]: Incubate dispersed parotid acinar cells (e.g., acinar cells) with 8 μM Mag-fura-2 tetrapotassium for 30 min at 37°C. Wash cells twice with fresh HBSS-H without BSA. Precoat cell adhesive Cell-Tak on sample chambers. Transfer dye-loaded cells to the chambers and attach to the bottom. Mount the sample chambers on an inverted microscope (equipped with a 40x objective), and wash with BSA-free HBSS-H, followed by Mg²⁺/ATP-free ICM. Incubate acinar cells with Mg²⁺/ATP-free ICM containing 50 μg/mL saponin for 3-5 min at room temperature. Wash the cells with ICM containing Mg²⁺ and ATP, and incubate in the complete ICM for at least 5 min to allow complete filling of the intracellular Ca²⁺ stores. Alternately excite permeabilized cells, capture and digitize fluorescence emission at 510 nm using a digital imaging system, recording the 344 nm/360 nm ratio every 20 s. Note: ICM (intracellular-like medium) contains 125 mM KCl, 19 mM NaCl, 10 mM HEPES (pH 7.3 with KOH), 3 mM ATP, 1.4 mM MgCl₂, 0.33 mM CaCl₂, and 1 mM EGTA.</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	1.7045 mL	8.5227 mL	17.0454 mL
5 mM	0.3409 mL	1.7045 mL	3.4091 mL
10 mM	0.1705 mL	0.8523 mL	1.7045 mL
50 mM	0.0341 mL	0.1705 mL	0.3409 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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