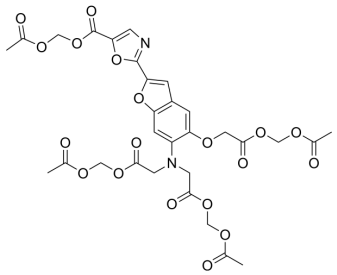
Mag-Fura-2 AM

Cat. No.:	HY-D1701
CAS No.:	130100-20-8
Molecular Formula:	$C_{30}H_{30}N_2O_{19}$
Molecular Weight:	722.56
Target:	Fluorescent Dye
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Calcium is an important part of the human body, usually in the form of calcium, a large number of bones and teeth of the human body, a small amount of blood and tissues.MCE calcium ion detection probe can specifically identify intracellular calcium ions, with high sensitivity, low cytotoxicity, increased AM acetylmethyl ester can enter the cell well, after being sheared by the intracellular esterase stay in the cell to bind to calcium ions, produce strong fluorescence, in addition, Mag-indo-1/AM and Mag-Fluo-4 AM at a certain concentration (usually 5 mM) can effectively identify intracellular magnesium ions [1].
In Vitro	1. Preparation of Mag-Fura-2 AM working solution 1.1 Preparation of the stock solution Dissolve 1 mg Mag-Fura-2 AM in 135 µL DMSO to obtain 10 mM of stock solution. Note: It is recommended to store the stock solution at -20℃ or -80℃ away from light and avoid repetitive freeze-thaw cycles. 1.2 Preparation of Mag-Fura-2 AM working solution Dilute the stock solution in HBSS to obtain 1-10 µM of working solution. Note: Please adjust the concentration of Mag-Fura-2 AM working solution according to the actual situation. 2. Cell staining 2.1 Suspension cells (6-well plate) a. Centrifuge at 1000 g at 4℃ for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time.The cell density is 1×10^6/mL b. Add 1 mL of working solution, and then incubate at room temperature for 5-30 minutes. c. Centrifuge at 400 g at 4℃ for 3-4 minutes and then discard the supernatant. d. Wash twice with PBS, 5 minutes each time. e. Resuspend cells with serum-free cell culture medium or PBS. Observation by fluorescence microscopy or flow cytometry. 2.2 Adherent cells a. Culture adherent cells on sterile coverslips. b. Remove the coverslip from the medium and aspirate excess medium. c. Add 100 µL of working solution, gently shake it to completely cover the cells,and then incubate at room temperature for 5-30 minutes. d. Wash twice with medium, 5 minutes each time. Observation by fluorescence microscopy. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. García-Martín E, et, al. Intrasynaptosomal free Mg2+ concentration measured with the fluorescent indicator mag-fura-2: modulation by Na+ gradient and by extrasynaptosomal ATP. J Neurochem. 1995 Dec;65(6):2757-64.

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