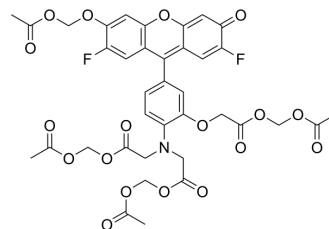


Mag-Fluo-4 AM

Cat. No.:	HY-D1498
CAS No.:	1097709-31-3
Molecular Formula:	C ₃₇ H ₃₃ F ₂ NO ₁₈
Molecular Weight:	817.65
Target:	Fluorescent Dye
Pathway:	Others
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



BIOLOGICAL ACTIVITY

Description	Mag-Fluo-4 AM is a fluorescent Ca ²⁺ chelator, with high affinity for calcium. Mag-Fluo-4 AM 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 ^[1] .
In Vitro	<ol style="list-style-type: none"> 1. Preparation of Mag-Fluo-4 AM working solution <ol style="list-style-type: none"> 1.1 Preparation of the stock solution Dissolve 1 mg Mag-Fluo-4 AM in 135 μL DMSO to obtain 10 mM of stock solution. Note: It is recommended to store the stock solution at -20°C or -80°C away from light and avoid repetitive freeze-thaw cycles. 1.2 Preparation of Mag-Fluo-4 AM working solution Dilute the stock solution in HBSS to obtain 1-10 μM of working solution. Note: Please adjust the concentration of Mag-Fluo-4 AM working solution according to the actual situation. 2. Cell staining <ol style="list-style-type: none"> 2.1 Suspension cells (6-well plate) <ol style="list-style-type: none"> a. Centrifuge at 1000 g at 4°C for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time. The cell density is 1×10⁶/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°C 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 <ol style="list-style-type: none"> 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. <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

CUSTOMER VALIDATION

- Toxicology. 2023 Mar 1.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Rossi AM, et al. Reliable measurement of free Ca²⁺ concentrations in the ER lumen using Mag-Fluo-4. Cell Calcium. 2020 May;87:102188.
- [2]. Gee KR, et al. Chemical and physiological characterization of fluo-4 Ca(2+)-indicator dyes. Cell Calcium. 2000 Feb;27(2):97-106.
-

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA