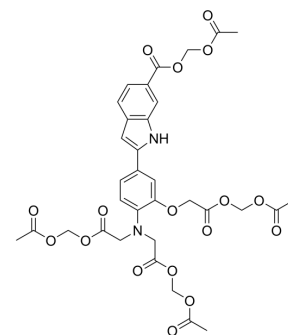


Mag-indo-1/AM

| | |
|---------------------------|---|
| Cat. No.: | HY-D1700 |
| CAS No.: | 130926-94-2 |
| Molecular Formula: | C ₃₃ H ₃₄ N ₂ O ₁₇ |
| Molecular Weight: | 730.63 |
| Target: | Fluorescent Dye |
| Pathway: | Others |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |



BIOLOGICAL ACTIVITY

| | |
|--------------------|--|
| Description | Mag-indo-1/AM is a cell-permeable fluorescent indicator for Mg ²⁺ and also for Ca ²⁺ (Ex=340-390 nm, Em=410-490 nm). Mag-indo-1/AM can be used to determine intracellular Mg ²⁺ and Ca ²⁺ concentrations ^{[1][2]} . |
| In Vitro | <p>Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).</p> <p>Measurement of intracellular Ca²⁺^[1]:</p> <ol style="list-style-type: none"> 1. Incubate 3 mL cell suspension with 10 μM Mag-indo-1/AM for 15 min at 30°C. 2. Centrifuge the cells for 1 min at 500 rpm and resuspend in 5 mL isolation buffer (containing 1 mM CaCl₂). 3. Add 1 mM probenecid to the cell suspension to prevent dye leakage from the cytosol and store the cells (Mag-indo-1/AM-loaded cells) at room temperature until use. 4. Incubate the Mag-indo-1/AM-loaded cells at room temperature for 2 h, shake gently at 37°C for 1.5 h, centrifuge the pellet, resuspend and store at room temperature. 6. Place a small portion of the loaded cells in an experimental chamber which is mounted on the stage of an inverted microscope. 7. Measure fluorescence of Mag-indo-1/AM (Ex=340-390 nm, Em=410 and 490 nm (the peak emissions of the Ca²⁺ bound and Ca²⁺ free forms of the indicator)). Fluorescence of the whole cell is collected on line by a photon counting system. <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> |

REFERENCES

[1]. Griffiths EJ. Calcium handling and cell contraction in rat cardiomyocytes depleted of intracellular magnesium. *Cardiovasc Res.* 2000 Jul;47(1):116-23.

[2]. Morelle B, et al. Measurement of intracellular magnesium concentration in 3T3 fibroblasts with the fluorescent indicator Mag-indo-1. *Anal Biochem.* 1994 Apr;218(1):170-6.

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

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