eBioscience™ Indo-1 AM Calcium Sensor Dye

Catalog Number: 65-0856
For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: eBioscience™ Indo-1 AM Calcium Sensor Dye
Catalog Number: 65-0856
Purity: >90% by HPLC

Formulation: Lyophilized yellow solid.
Temperature Limitation: Store at -20°C. Protect from light and moisture.
Batch Code: Refer to vial
Use By: Refer to vial

Description

Indo-1 AM Calcium Sensor Dye is a membrane-permeable dye used for determining changes in calcium concentrations in the cell using fluorescence microscopy, flow cytometry, fluorescence spectroscopy and fluorescence microplate readers. Once Indo-1 enters the cell, esterases cleave the AM group yielding a membrane-impermeable dye. Unbound Indo-1 has a peak emission at 475 nm. Upon binding calcium, the peak emission shifts down to 410 nm.

In flow cytometry this can be measured over time and can be represented as a ratio of the two emission wavelengths. To optimize the ratio between the two emissions, unbound Indo-1 fluorescence should be collected using a filter above 485nm (525 nm is a good option) while bound Indo-1 fluorescence should be collected using a filter below 400 nm. Because the emission profile of Indo-1 is broad, multicolor flow analysis using eFluor ™ 450, eVolve™ 605 or eVolve™ 655 is not possible, however fluorochrome conjugated antibodies utilizing the 488nm or 633 nm are quite compatible with Indo-1.

Molecular Weight: 1009.91
Peak Excitation: 346 nm
Peak Emission: 475 nm

Indo-1 AM should be reconstituted in high-quality, freshly opened DMSO. Recommended concentration: 1 mM. Once reconstituted, it should be protected from light and stored at -20°C; avoid freeze-thaws.

Applications Reported

Indo-1 AM has been reported for use in flow cytometric analysis.

Applications Tested

It is recommended that Indo-1 AM be used at concentrations between 0.1 - 1 µM in flow cytometric applications. It is highly recommended that the concentration and labeling conditions be carefully determined by each investigator for optimal performance in the assay of interest.

References

Jennings LK, Dockter ME, Wall CD, Fox CF, Kennedy DM. Calcium mobilization in human platelets using indo-1 and flow cytometry. Blood. 1989 Dec;74(8):2674-80.

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