


eBioscience™ Calcein Violet 450 AM Viability Dye

Catalog Number: 65-0854

For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: eBioscience™ Calcein Violet 450 AM Viability Dye

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Formulation: Lyophilized off-white solid. Purity > 97% as determined by HPLC.

Temperature Limitation: Store at -20°C. Protect from light and moisture.

Batch Code: Refer to vial

Use By: Refer to vial







Description

Calcein Violet 450 AM is a membrane-permeable live-cell labeling dye. Upon entering the cell, intracellular esterases cleave the acetoxymethyl (AM) ester group, yielding the membrane-impermeable Calcein Violet fluorescent dye. Apoptotic and dead cells with compromised cell membranes do not retain Calcein Violet 450. Calcein Violet 450 is optimally excited at 408 nm and has a peak emission of 450 nm. For fluorescent microscopy, Calcein Violet 450 can be detected using the appropriate filter sets. For flow cytometric analysis, it can be excited off of the violet laser line (405 nm) and detected using filters for Pacific Blue®/eFluor® 450 (450/50). Co-staining with Annexin V or 7-AAD is recommended to allow the greatest resolution between live and dead/apoptotic cells.

Molecular weight: 600
Peak excitation: 408 nm
Peak emission: 450 nm

Calcein Violet 450 AM should be reconstituted in high-quality, freshly opened DMSO. Once reconstituted, it should be stored at -20°C with desiccant and used within a short period of time. Avoid freeze-thawing.

Applications Reported

Calcein Violet 450 AM has been reported for use in flow cytometric analysis and fluorescence microscopy.

Applications Tested

Calcein Violet 450 AM has been tested by flow cytometric analysis of mouse thymocytes. It can be used at a concentration of 1-10 µM. 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

Prowse AB, Wilson J, Osborne GW, Gray PP, Wolvetang EJ. Multiplexed staining of live human embryonic stem cells for flow cytometric analysis of pluripotency markers. *Stem Cells Dev.* 2009 Apr 27.

Cole LE, Shirey KA, Barry E, Santiago A, Rallabhandi P, Elkins KL, Puche AC, Michalek SM, Vogel SN. Toll-like receptor 2-mediated signaling requirements for Francisella tularensis live vaccine strain infection of murine macrophages. *Infect Immun.* 2007 Aug;75(8):4127-37.

Related Products

00-6993 eBioscience™ 7-AAD Viability Staining Solution
65-0853 eBioscience™ Calcein AM Viability Dye (UltraPure Grade)
65-0855 eBioscience™ Calcein Blue AM Viability Dye
88-8007 eBioscience™ Annexin V Apoptosis Detection Kit APC

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