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Product Specifications

LBL-Dye M715 – Far Red Mitochondrial Tracker

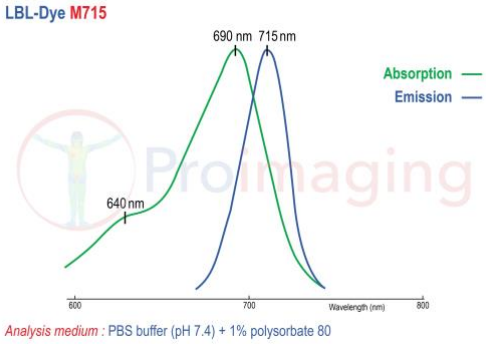
https://proimaging.fr/product/lbl-dye-m715/

Product Information

Product Name: LBL-Dye M715
Product Reference: BM298
Unit Size: 1mg
Shipping Conditions: Room temperature for up to 3 weeks
Storage Conditions: Store 18 months at -20°C and protect from light

Molecular Weight: ~ 810
Max Absorption: 690 nm
Max Emission: 715 nm
Fluorescence Lifetime: 1.1 ns
STED Depletion Wavelength: 775 nm

Solubility:
- DMSO
- PBS Buffer (pH 7.4) + 1% polysorbate 80



Product Description

LBL-Dye M715 is a cell-permeant, lipophilic fluorescent dye with an emission wavelength of 715 nm, specifically designed for mitochondrial staining.

This photostable, non-cytotoxic probe is ideal for long-term imaging of living cells.

LBL-Dye M715 is compatible with various imaging techniques, including widefield microscopy, confocal microscopy, high-content screening (HCS), flow cytometry, fluorescence lifetime imaging (FLIM, with a lifetime of approximately 1 ns), and super-resolution STED imaging, offering high depletion capacity. It can be used effectively on both live cells and cells fixed with PFA post-labeling.

Product for Research Use Only. Not for Human Use.

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Protocol of Use

Preparing Stock Solution
Solubility in DMSO / PBS Buffer (pH 7.4) + 1% polysorbate 80

To prepare a stock solution, dissolve the **1 mg** lyophilized **LBL-Dye M715** product in **125 µl** of high-quality, anhydrous dimethylsulfoxide (DMSO) to a final concentration of **8 mg/ml**. The solution must be aliquoted and stored at ≤–20°C and protected from light.

Experimental Protocols

Cell Preparation and Staining

The concentration of probe for optimal staining varies by application, cell type or on other factors, such as the permeability of the cells or tissues to the probe. In general, use working concentrations of ***0,01% to 0,025% (0,8 to 2 µg/ml)*** **– x4 000-10 000 from stock solution**.

1. *Preparation of staining solutions*

Dilute **1 µl LBL-Dye M715** stock solution for **4 ml** of appropriate buffer or growth medium.

2. *Staining adherent cells*

Cells grow on plate or coverslips with the appropriate culture medium. When cells have reached the desired confluency, remove the media from the dish and add prewarmed (37°C) staining solution containing **LBL-Dye M715** probe. The probe can be applied directly in culture medium without removal. While incubation times vary depending on the model system and probe used, incubation for 15–45 minutes under growth conditions appropriate for the cell type is generally sufficient but may need to be optimized. After staining is complete, visualize the staining after exposure at **optimal absorbance of 690 nm and detect at 700-750 nm of emission wavelength**. If background is observed, replace the staining solution with fresh prewarmed media or buffer and observe cells using a fluorescence microscope or fluorescence microplate reader. The cells can be fixed with PFA4% to preserve the staining in fixed cells and tissues.

3. *Staining suspension cells*

Centrifuge with adapted speed to obtain a cell pellet and aspirate the supernatant. Resuspend the cells gently in prewarmed culture medium (37°C) containing the **LBL-Dye M715** probe. While incubation times vary depending on cell type, incubation for 15–45 minutes under growth conditions is generally sufficient but may need to be optimized. After staining is complete, observe directly or re-pellet the cells by centrifugation and resuspend cells in fresh prewarmed medium if background signal is high.

Cells may be analyzed by flow cytometry, microplate-based analysis, or fluorescence microscopy. The cells can be fixed with PFA4% to preserve the staining in fixed cells and tissues.