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3159 Corporate Place
Hayward, CA 94545
www.biotium.com

Revised: February 2, 2012

Product Information

MitoView™633

Catalog Number:70055

Size: 20 x 50 ug

Molecular Information: MW: 543.7

Color and Form: Dark blue solid

Spectral Properties: λ_{abs} /λ_{em} = 622/648 nm in methanol

Storage and Handling

Store desiccated at -20°C, protected from light. When stored as recommended product is stable for at least one year from date of receipt. To prepare a 200 uM stock solution, dissolved on 50 ug vial in 460 uL anhydrous DMSO or DMF. Stock solution can be stored desiccated in single use aliquots at -20°C, protected from light for at least six months.

Product Description

MitoView™633 is a far-red fluorescent mitochondrial dye. MitoView 633 staining is dependent on intact mitochondrial membrane potential, and can be used to detect changes in mitochondrial membrane potential in intact cells. MitoView 633 is membrane permeable and becomes brightly fluorescent upon accumulation in the mitochondrial membrane. The dye is recommended for use in live cells. Subsequent fixation and permeabilization may reduce or abolish staining.

Staining Protocols

General guidelines for staining cells with MitoView 633 are provided below. The optimal staining concentration and incubation time may vary by application and cell type. We recommend testing MitoView 633 at final staining concentrations between 20-200 nM. At higher concentrations, other cellular structures may be stained.

Staining of adherent cells:

1. Grow cells on coverslips, chamber slides, or plastic dishes.
2. When cells are at appropriate confluence, remove the medium and add pre-warmed medium containing diluted MitoView 633. Alternatively, the probe can be added directly to the current culture medium.
3. Incubate cells for 15-30 minute or longer at 37°C.
4. Replace the loading solution with fresh medium or PBS and observe cells by fluorescence microscopy.

Staining of suspension cells:

1. Pellet cells and aspirate the supernatant.
2. Resuspend the cell pellet in medium containing diluted MitoView 633.
3. Incubate for 15-30 minutes or longer at 37°C .
4. Centrifuge the cells and resuspend pellet in fresh medium or PBS and observe cells using a fluorescence microscope or analyze on flow cytometer.

Note: If cells are not stained sufficiently, increase the concentration or the incubation time for the dye to accumulate in the mitochondria.

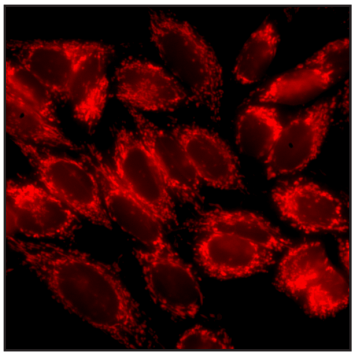

Figure 1: HeLa cells were stained with 200 nM MitoView 633 for 30 min, rinsed in PBS, and imaged on an Olympus epifluorescence microscope using a Cy5 filter.

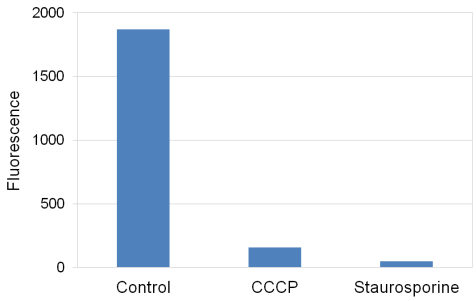

Figure 2: Measurement of mitochondrial membrane potential in Jurkat cells using MitoView633 and flow cytometry. Jurkat cells were treated with CCCP (50 uM, 10 min.) to depolarize the mitochondrial membrane, or staurosporine (1 uM, 5 hours) to induce apoptosis. Cells were stained with 150 nM MitoView 633 for 30 minutes and analyzed by flow cytometry. Cells treated with CCCP or staurosporine show a significant decrease in staining intensity with MitoView 633 compared to untreated control cells.

Related Products

Catalog number	Product
70054	MitoView™ Green
30001	JC-1 Mitochondrial Membrane Detection Kit
30062	NucView™488 and MitoView™633 Apoptosis Assay Kit
30029	NucView™ 488 Caspase-3 Assay Kit for live cells
30067	Dual Apoptosis Assay Kit with NucView™ 488 caspase-3 substrate and CF™594-Annexin V
30065	Apoptosis & Necrosis Quantitation Kit Plus
30066	Apoptotic, Necrotic & Healthy Cells Quantitation Kit Plus
30060	CF™488A Annexin V and 7-AAD Apoptosis Kit
30061	CF™488A Annexin V and PI Apoptosis Kit
30063	CF™488A TUNEL Assay Apoptosis Detection Kit
30064	CF™594 TUNEL Assay Apoptosis Detection Kit

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