Product Information

MitoScene™ Green I

Catalog Number: M4063S, M4063L

Product Size: 50 μg, 20 × 50 μg

Application Scope: Mitochondrial dye

Parameters

Appearance: Red solid soluble in DMSO or DMF

Ex/Em: 490/523 nm (in MeOH)

CAS: 201860-17-5

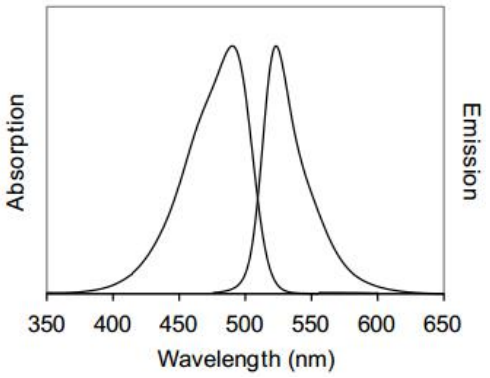

Figure 1. Absorption and emission spectra of MitoScene™ Green I dye in Methanol.

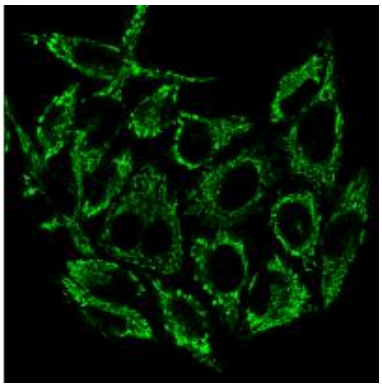

Figure 2. Experimental results of HeLa cells stained with MitoScene™ Green I (100 nM 37°C for 30 min)

Storage

Store at -20°C and protect from light. Expiration date marked on the outer packing.

Description

MitoScene™ Green I is a green fluorescent mitochondrial dye that stains mitochondria at the nanomolar level. The dye is non-fluorescent until it partitions into the mitochondrial membrane. The staining relies on mitochondrial mass, not on mitochondria membrane potential. When stained fixed cells, the signal-to-noise ratios is unideal. The fluorescent signal will be weakened or lost after fixed and permeabilized.

1. Dyeing liquid preparation

(1) Preparation of stock solution: Dissolve one 50 μg vial of lyophilized dye in 400 μL anhydrous DMSO to prepare 200 μM stock solution.

(2) Preparation of working solution: The optimal staining concentration may depending on differentcell types. Dilute the stock solution with medium or PBS to prepare a working solution with a concentration of 20-200 nM.

2. Staining Live Cells

(1) When cells are at appropriate confluence, remove the medium and add prewarmed MitoScene™ Green I working solution. For suspension cells, pellet the cells and resuspend in prewarmed MitoScene™ Green I working solution.

Note:The medium for diluting the dye cannot contain serum, because the dye will be affected by the oxidase in the serum. We recommend diluting with PBS or basal medium.

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(2) Incubate cells for 15-45 minutes at 37°C.

(3) Discard MitoScene™ Green I staining solution and add new medium or PBS to the cells.

(4) Analyze fluorescence by fluorescence microscopy or flow cytometry.

Notes

1. There are quenching problems with fluorescent dyes. Please avoid light to slow down the fluorescence quenching.

2. For your safety and health, please wear lab coats and disposable gloves.

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