MitoTracker® Green FM

500 µg
(10 x 50 µg)

Description: MitoTracker® Green FM is recommended for live cell imaging only; fixation with aldehydes or alcohols will inhibit staining.

Excitation: 490 nm
Emission: 516 nm

Background: MitoTracker® dyes are cell permeable probes that contain a mildly thiol-reactive chloromethyl moiety for mitochondrial labeling. To label mitochondria, cells are simply incubated with MitoTracker® probes, which passively diffuse across the plasma membrane and accumulate in active mitochondria.

Directions for Use: Each vial of MitoTracker® Green FM contains 50 µg lyophilized solid. To make a 1 mM stock solution, reconstitute the solid in 74.4 µl high quality DMSO. While the optimal staining concentration and incubation times can vary by application, typical results are obtained by diluting the stock solution directly into normal growth media at a concentration between 100-400 nM and incubating between 15-30 min at 37°C. After incubation, the cells must be imaged live; DO NOT FIX!

To reduce background fluorescence of the media, phenol red free media can be substituted for normal media prior to imaging.

Storage: Store lyophilized solid at -20°C dessicated and protected from light. In lyophilized form, this reagent is stable for 12 months. Once reconstituted in DMSO, the solution should be stored at -20°C, protected from light, and must be used within 2 weeks. Avoid freeze-thaw cycles.

Flow cytometric analysis of live Jurkat cells, untreated (blue) or treated with CCCP (80 µM, 15 min; green) labeled with MitoTracker® Green FM (solid lines), compared to unlabeled Jurkat cells (dashed line).