CREATIVE BIOMART®
Assay Kit

TMRE Mitochondrial Membrane Potential Assay Kit (Fluorometric)

Product Information

Cat

Kit-2197

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Product Overview

Mitochondria are the powerhouse of the cells and generate energy in the form of ATP. Mitochondria utilize oxidizable substrates to produce a membrane potential in the form of a proton gradient across the mitochondrial inner membrane. Mitochondrial membrane potential is tightly interlinked to many mitochondrial processes, including ATP synthesis, ROS, calcium sequestration and import of proteins into the mitochondrion. Therefore, pharmacological changes in mitochondrial membrane potential are associated with several pathological parameters.;RE Mitochondrial Membrane Potential Assay Kit uses;RE (tetramethylrhodamine, ethyl ester) to label active mitochondria.;RE is a cell-permeable, positively-charged, red-orange dye that readily accumulates in active mitochondria. Protonophores like FCCP and CCCP induces dissipation of mitochondrial membrane thus results in compromised staining.

Applications

Labeling of active mitochondria in cellsScreening of compounds which may compromise mitochondrial membrane potential.

Storage

-20°C

Shipping

Gel Pack

Size

200 assays

Kit Components

Assay Buffer; RE Dye (1 mM, in DMSO); Negative Control (FCCP, 40 mM)

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Detection method	Fluorescence (Ex/Em = 535/587 nm), FACS [FL-3 (Red) channel], Fluorescent microscopy [red filter (Ex/Em = 549/575 nm)]

Features & Benefits

Convenient method;
Based on cell-permeable, positively-charged, red-orange dye RE, that readily accumulates in the active mitochondria;
Includes Protonophores FCCP to validate the assay

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