

TMRE Mitochondrial Membrane Potential Assay Kit (Fluorometric)

Cat. No. Kit-2197 Lot. No. (See product label)

SPECIFICATION

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. TMRE Mitochondrial Membrane Potential Assay Kit uses TMRE (tetramethylrhodamine, ethyl ester) to label active mitochondria. TMRE 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 cells Screening 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)
Detection method	Fluorescence (Ex/Em = 535/587 nm), FACS [FL-3 (Red) channel], Fluorescent

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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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