

Datasheet: ICT946

BATCH NUMBER 158196

Description:	MITOCHONDRIAL MEMBRANE POTENTIAL KIT
Name:	MITOCHONDRIAL MEMBRANE POTENTIAL MitoPT™ TMRE KIT
Format:	TMRE Mitochondrial Stain (Red Fluorescence)
Product Type:	Kits
Quantity:	500 TESTS

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
Immunofluorescence	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Product Information

The MitoPT™ TMRE kit uses a quick and easy staining method to clearly differentiate between non-apoptotic and apoptotic cells through mitochondrial functionality.

Test Principle

An early indication of apoptosis involves a collapse in the electrochemical gradient across the mitochondrial membrane. Loss of mitochondrial membrane potential can be detected by a unique fluorescent cationic dye known as TMRE (tetramethylrhodamine ethyl ester), that has been incorporated into the MitoPT™ TMRE kit.

The MitoPT™ TMRE reagent easily penetrates cells and enters the mitochondria. It aggregates in the mitochondria of non-apoptotic cells and fluoresces bright orange/red, whilst in apoptotic cells it diffuses throughout the cell. Once dispersed, the reagent assumes a monomeric form and exhibits a reduced orange/red fluorescence level. This allows an easy distinction between apoptotic and non-apoptotic fluorescent cells which can be read with a flow cytometer, fluorescence microscope or a fluorescence plate reader using black microtitre plates.

Reagents In The Kit

MitoPT™ TMRE Reagent - lyophilized - to make up 1mM stock
 10x Assay Buffer, 125ml (x2)
 600uL 50mM carbonyl cyanide m-chlorophenylhydrazone (CCCP) concentrate in DMSO.

Instructions For Use	Instructions for use can be found at www.bio-rad-antibodies.com/uploads/IFU/IFUICT946.pdf
Storage	Store the unopened kit at -20°C. Once open, the 10x Assay Buffer can be stored at 2-8°C until the expiry date shown. Protect the MitoPT™ TMRE Reagent from light at all times. Once reconstituted, the MitoPT™ TMRE stock should be stored at -20°C, protected from light and thawed no more than twice.
Guarantee	Guaranteed until date of expiry. Please see product label.
Acknowledgements	MitoPT™ is a trademark of Immunochemistry Technologies, LLC.
Health And Safety Information	Material Safety Datasheet documentation #20294 #10474 #10479 available at: MitoPT™ TMRE Reagent (20294): https://www.bio-rad-antibodies.com/uploads/MSDS/20294.pdf 10X Assay Buffer (10474): https://www.bio-rad-antibodies.com/uploads/MSDS/10474.pdf CCCP Reagent (10479): https://www.bio-rad-antibodies.com/uploads/MSDS/10479.pdf
Regulatory	For research purposes only

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
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Printed on 08 Feb 2023