

Datasheet: ICT946

**BATCH NUMBER 156981**

<b>Description:</b>	MITOCHONDRIAL MEMBRANE POTENTIAL KIT
<b>Name:</b>	MITOCHONDRIAL MEMBRANE POTENTIAL MitoPT™ TMRE KIT
<b>Format:</b>	TMRE Mitochondrial Stain (Red Fluorescence)
<b>Product Type:</b>	Kits
<b>Quantity:</b>	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](http://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.

<b>Instructions For Use</b>	Instructions for use can be found at <a href="http://www.bio-rad-antibodies.com/uploads/IFU/IFUICT946.pdf">www.bio-rad-antibodies.com/uploads/IFU/IFUICT946.pdf</a>
<b>Storage</b>	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.
<b>Guarantee</b>	Guaranteed until date of expiry. Please see product label.
<b>Acknowledgements</b>	MitoPT™ is a trademark of Immunochemistry Technologies, LLC.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20294 #10474 #10479 available at: <a href="https://www.bio-rad-antibodies.com/SDS/ICT946">https://www.bio-rad-antibodies.com/SDS/ICT946</a> MitoPT™ TMRE Reagent (20294) 10X Assay Buffer (10474) CCCP Reagent (10479)
<b>Regulatory</b>	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](http://bio-rad-antibodies.com/datasheets)  
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