

## Datasheet: ICT946

<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-chlorophenylhydrazine (CCCP) concentrate in DMSO.

### Instructions For Use

Instructions for use can be found at [www.bio-rad-antibodies.com/uploads](http://www.bio-rad-antibodies.com/uploads)

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**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.

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**Guarantee** Guaranteed until date of expiry. Please see product label.

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**Acknowledgements** MitoPT is a trademark of Immunochemistry Technologies, LLC.

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**Health And Safety Information** Material Safety Datasheet documentation #20294 #10474 #10479 available at: <https://www.bio-rad-antibodies.com/SDS/ICT946>  
MitoPT™™ TMRE Reagent (20294)  
10X Assay Buffer (10474)  
CCCP Reagent (10479)

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**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](https://www.bio-rad-antibodies.com/datasheets)  
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