

Datasheet: ICT944

Description:	MITOCHONDRIAL PERMEABILITY TRANSITION KIT
Name:	MITOCHONDRIAL PERMEABILITY TRANSITION:MitoPT™ JC-1 KIT
Format:	JC-1 Dye (Dual Green/Red Fluorescence)
Product Type:	Kits
Quantity:	400 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™ JC-1 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 JC-1 (5,5',6,6'-tetrachloro-1,1',3,3'-tetraethylbenzamidoazolocarbocyanin iodide) that has been incorporated into the MitoPT™ JC-1 kit.

The MitoPT™ JC-1 reagent easily penetrates cells and enters the mitochondria. It aggregates in the mitochondria of non-apoptotic cells and fluoresces red, whilst in apoptotic cells it diffuses throughout the cell. Once dispersed, the reagent assumes a monomeric form and fluoresces green. This allows an easy distinction between non-apoptotic red fluorescent cells and apoptotic green 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™ JC-1 Reagent - lyophilized
10X Assay Buffer, 125mL
600uL vial of 50mM Carbonylcyanide m - chlorophenylhydrazone (CCCP) concentrate in DMSO

Instructions For Use Instructions for use can be found at www.bio-rad-antibodies.com/uploads/IFU/ICT944.pdf

Storage Store the unopened kit (and each unopened component) at -20°C until the expiration date. Protect the MitoPT™ JC-1 reagent from light at all times.

Once reconstituted, the 100X MitoPT™ JC-1 stock should be stored at -20°C protected from light.

Shelf Life Please see label for expiry date.

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

Health And Safety Information Material Safety Datasheet documentation #20291 #10474 #10479 available at:
MitoPT™ JC-1 Reagent (20291): <https://www.bio-rad-antibodies.com/uploads/MSDS/20291.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

North & South America Tel: +1 800 265 7376
Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

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