abcam

Product datasheet

Orange Mitochondrial Membrane Potential Assay Kit (Flow Cytometry) ab138898

1 References 1 图像

产品名称 Orange Mitochondrial膜Potential Assay试剂盒(Flow Cytometry)

检测方法 Fluorescent

样品类型 Adherent cells, Suspension cells

检测类型 Direct

产品概述 Orange Mitochondrial Membrane Potential Assay Kit (Flow Cytometry) (ab138898) is designed

to detect cell apoptosis by measuring the loss of the mitochondrial membrane potential (MMP). The collapse of mitochondrial membrane potential coincides with the opening of the mitochondrial permeability transition pores, leading to the release of cytochrome C into the cytosol, which in turn

triggers other downstream events in the apoptotic cascade.

ab138898 provides all the essential components with an optimized assay method. This fluorimetric assay uses our proprietary cationic MitoOrange Dye for the detection of apoptosis in cells with the loss of mitochondrial membrane potential. In normal cells, the red fluorescence intensity is increased when MitoOrange Dye is accumulated in the mitochondria. However, in apoptotic cells, the fluorescence intensity of MitoOrange Dye is decreased following the collapse of MMP. Cells stained with MitoOrange Dye can be visualized with a flow cytometer at 488 nm excitation with red emission (FL2 channel). The kit can be used together with other reagents for multi-parametric study of cell vitality and apoptosis. The kit is optimized for screening apoptosis

activators and inhibitors with a flow cytometer.

说明 Related assays

Review the <u>cell health assay guide</u> to learn about kits to perform a <u>cell viability</u> <u>assay</u>, <u>cytotoxicity assay</u> and <u>cell proliferation assay</u>.

Review the <u>metabolism assay guide</u> to learn about assays for metabolites, metabolic enzymes, mitochondrial function, and oxidative stress, and also about how to assay metabolic function in live cells using your plate reader.

平台 Fluorescence microscope

性能

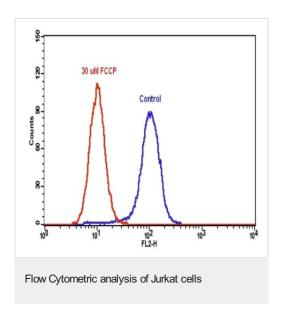
存放说明 Store at -20°C. Please refer to protocols.

组 件	100 tests
Assay Buffer	1 x 100ml
MitoOrange Dye	1 x 200µl

相关性

Mitochondrial Membrane Potential is an important parameter of mitochondrial function used as an indicator of cell death. The collapse of the mitochondrial Membrane potential coincides with the opening of the mitochondrial permeability transition pores, leading to the release of cytochrome c into the cytosol, which in turn triggers other downstream events in the apoptotic cascade.

图片



Flow Cytometric analysis demonstrating the decrease in fluorescence intensity of MitoOrange Dye with the addition of FCCP in Jurkat cells. Jurkat cells were loaded with MitoOrange Dye alone (Blue) or in the presence of 30 µM FCCP (Red) for 15 minutes. The fluorescence intensity of MitoOrange Dye was measured with a flow cytometer using the FL2 channel.

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