abcam

Product datasheet

Cellular ROS Assay Kit (Deep Red) ab186029

48 References 3 图像

概述

产品名称	Cellular ROS Assay试剂盒(Deep Red)
样品类型	Adherent cells, Suspension cells
检测时间	1h 00m
产品概述	Cellular ROS Assay Kit (Deep Red) ab186029 uses an ROS sensor to quantify ROS in live cells. The ROS Deep Red dye is cell-permeable and generates Deep Red fluorescence when it reacts with ROS. The fluorescence signal of the ROS Deep Red Dye can be measured by fluorescence microscopy, high-content imaging, microplate fluorometry, or flow cytometry. ab186029 provides a sensitive fluorometric, one-step assay to detect intracellular ROS (especially superoxide and hydroxyl radical) in live cells within 1 hour. The assay can be performed in a convenient 96-well or 384-well microtiter-plate format using either a fluorescence microplate reader at Ex/Em = 650/675 nm or a fluorescent microscope with with Cy5 filter.
说明	Previously called Cellular Reactive Oxygen Species Detection Assay Kit (Deep Red Fluorescence). Reactive oxygen species (ROS) are natural byproducts of the normal metabolism of oxygen and play important roles in cell signaling. However, during oxidative stress-related states, ROS levels can increase dramatically. The accumulation of ROS results in significant damage to cell structures. The role of oxidative stress in cardiovascular disease, diabetes, osteoporosis, stroke, inflammatory diseases, a number of neurodegenerative diseases and cancer has been well established. The ROS measurement will help to determine how oxidative stress modulates varied intracellular pathways. **Related products** Review the **oxidative stress marker and assay guide**, or the full **metabolism assay guide** to learn about more assays for metabolites, metabolic enzymes, mitochondrial function, and oxidative stress, and also how to assay metabolic function in live cells using your plate reader. To measure reactive oxygen species within cells, we recommend **DCFDA / H2DCFDA - Cellular ROS Assay Kit ab113851**. Alternative ROS assays are available in orange (**ab186028**), red (**ab186027**), and deep red (ab186029). **ab238535** is used to measure ROS in biofluids, culture supernatants and cell lysates. For assays designed to differentiate ROS, superoxides, and reactive nitrogen species: to assay ROS and superoxides use **ab139476**; to assay ROS, superoxides, and reactive nitrogen species use **ab139473**; to assay superoxides use **ab219943**.

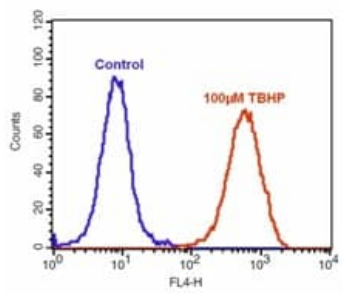
平台 Microplate reader, Fluor. microscope, Flow cyt.

性能

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

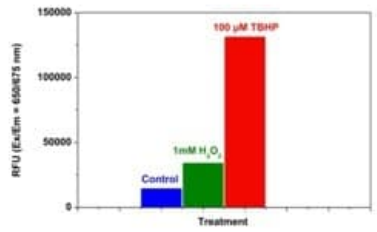
组件	200 tests
Assay Buffer	1 x 20ml
DMSO	1 x 100µl
ROS Deep Red Dye (Lyophilized)	1 vial

图片



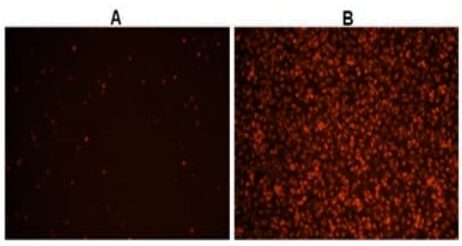
Detection of ROS in Jurkat Cells

Jurkat cells were treated without (Blue) or with 100µM TBHP (Red) for 30min at 37 °C, and then loaded with ROS Deep Red in a 5% CO2, 37 °C incubator for 1 hour. The fluorescent intensities were measured with a flow cytometer using FL2 channel



Detection of ROS in Hela cells.

Hela cells were seeded overnight at 15,000 cells/90 µl/well in a black wall/clear bottom 96-well plate. The cells were untreated (control) or treated with1 mM H2O2 or 100 µM TBHP for 30 minutes at 37 °C. The ROS Deep Red assay solution (100 µl/well) was added and incubated in a 5% CO2, 37°C incubator for 1 hour. The fluorescence signal was monitored at Ex/Em = 650/675 nm (cut off = 665 nm) with bottom read mode.



Hela cells stained with the Cellular Reactive Oxygen Species Detection Assay Kit (Deep Red Fluorescence) (ab186029)

Images of Hela cells stained with the Cellular Reactive Oxygen Species Detection Assay Kit (Deep Red Fluorescence) (ab186029) in a black wall/clear bottom 96-well plate. A: Untreated control cells. B: Cells treated with 100 µM TBHP for 30min before staining.

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