CREATIVE BIOMART®
Assay Kit

hROS Detection Kit

Product Information

Cat.No. Kit-0467

Product Overview

A selective indicator for the detection of Highly Reactive Oxygen Species, hROS.

Description

A new novel probe, Aminophenyl fluorescein (APF), developed by Tetsuo Nagano et. al. (1), is a general selective indcator for the detection of highly Reactive Oxygen Species (hROS). The probe has little reactivity towards other ROS such as: singlet oxygen (O21), superoxide (O2-•), hydrogen peroxide (H2O2), nitric oxide (NO•), and alkyl peroxide (RO2•) (see table below)1. APF is a cell permeable indicator that can be used to detect Hydroxyl Radical (.OH), Peroxynitrite: (ONOO-) and hypochlorite (-OCl) production in cells.Several fluorescent probes such as 2",7"-dichlorodihydrofluorescein (DCFH) and di-hydrorhodamine123, have been developed to detect Reactive Oxygen Species (ROS). As Hempel and co-workers have indicated, DCFH and di-hydrorhodamine123 can react with various ROS and oxidizing species such as hydrogen peroxide, hypochlorite, superoxide, nitric oxide, ferrous ion, and others. These probes should be considered as detecting a broad range of ROS.

Applications

Flow Cytometer, Fluorescence Microscope, Fluorescence plate reader

Usage

1. For Research use only. Not for use in diagnostic procedures.2. Practice safe laboratory procedures by wearing protective clothing and eyewear.

Storage

1. Long Term Storage: Store contents as labeled.2. Upon Arrival: 2-8°C.3. Aminophenyl fluorescein (APF) and Hydroxyphenyl fluorescein (HPF) should be stored at 4-80C. Protect from light until ready to use. The diluted material must be used immediately and discard any unused diluted material.

Kit Components

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CREATIVE BIOMART®
Assay Kit

hROS Detection Kit

One vial of APF

Features & Benefits

1. Quenched Cell permeable dye.2. One Step, No wash Homogenous assay.3. Adaptable to High throughput assay platforms.4. Can monitor multiple time points to follow real time kinetics.5. Non-destructive cell based assay allows monitoring of additional parameters.6. Applications-Fluorescent plate reader/Flow Cytometery/Fluorescent Microscopy.

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