CREATIVE BIOMART®
Assay Kit

Hypochlorite Detection Kit

Product Information

Cat.No.

Kit-0473

Product Overview

Hydroxyphenyl fluorescein (HPF) and Aminophenyl fluorescein (APF) are selective for the detection of highly reactive oxygen spe-cies (hROS). HPF has little reactivity towards other ROS such as: singlet oxygen (O2), superoxide (O2-•), hydrogen peroxide (H2O2), nitric oxide (NO•), and alkyl peroxide (RO2•). HPF/APF are cell permeable and can be used in combination to detect hypo-chlorite (-OCl) production in cells. Hypochlorite can be detected by loading two samples, one with APF and the other with HPF. Hypo-chlorite production is visualized by increase in fluorescence of APF loaded cells and no increase in fluorescence in HPF loaded cells.

Description

The two new novel probes, Aminophenyl fluorescein (APF) and Hydroxyphenyl fluorescein (HPF) developed by Tetsuo Nagano et. al. (1), are selective for the detection of highly reactive oxygen species (hROS). Both probes have little reactivity towards other ROS such as: singlet oxygen (021), superoxide (O2-•), hydrogen peroxide (H202), nitric oxide (NO•), and alkyl peroxide (RO2•) (see table below)1. HPF/APF are cell permeable and can be used in combination to detect hypochlorite (-OCl) production in cells (see fig 1). Hypochlorite can be detected by loading two samples, one with APF and the other with HPF. Hypochlorite production is visualized by increase in fluorescence of APF loaded cells and no increase in fluorescence in HPF loaded cells.

Applications

Flow Cytometer, Fluorescence plate reader, Fluorescence Microscope

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: 2-8o C.3. Aminophenyl fluorescein

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(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

Reagent-Storage Temperature1. HPF Dye, 1 Vial, 2-8°C;2. APF Dye, 1 Vial 2-8°C

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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