

Hydroxyl/Peroxynitrite Detection Kit

Product Information

Cat.No.

Kit-0466

Product Overview

Hydroxyphenyl fluorescein (HPF) is a highly selective, cell permeable fluorescent probe for the detection of highly Reactive Oxygen Species (hROS): hydroxyl radical ($\text{OH}\cdot$), and peroxynitrite (ONOO^-) detection. It has little reactivity towards other hROS such as: hypochlorite ($-\text{OCl}$), singlet oxygen (O_2), superoxide ($\text{O}_2\cdot^-$), hydrogen peroxide (H_2O_2), nitric oxide ($\text{NO}\cdot$), and alkyl peroxide ($\text{RO}_2\cdot$).

Description

A new novel probe, Hydroxyphenyl fluorescein (HPF), developed by Tetsuo Nagano et. al. (1), is a highly selective probe for the detection of highly Reactive Oxygen Species (hROS). It is a cell permeable highly sensitive fluorescent probe for hydroxyl radical ($\text{OH}\cdot$), and peroxynitrite (ONOO^-) detection. It has little reactivity towards other hROS such as: hypochlorite ($-\text{OCl}$), singlet oxygen (O_2), superoxide ($\text{O}_2\cdot^-$), hydrogen peroxide (H_2O_2), nitric oxide ($\text{NO}\cdot$), and alkyl peroxide ($\text{RO}_2\cdot$).

Applications

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: $2-8^\circ\text{C}$. 3. Aminophenyl fluorescein (APF) and Hydroxyphenyl fluorescein (HPF) should be stored at $4-80^\circ\text{C}$. Protect from light until ready to use. The diluted material must be used immediately and discard any unused diluted material.

Kit Components

1. Kit: Hydroxyl radical/Peroxynitrite Detection 1) 1 vial: HPF 5mM solution in DMF 2. Kit: hROS Detection 1)

Hydroxyl/Peroxynitrite Detection Kit

1 vial: APF 5mM solution in DMF.3. Kit:HypochloriteDetection1) 1 vial: APF: 5mM solution in DMF.2) 1 vial: HPF: 5mM solution in DMF.

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 Cytometry/Fluorescent Microscopy.
