abcam

Product datasheet

Peroxynitrite Assay Kit (Cell-based, Flow cytometry) ab233470

1 Image

Overview

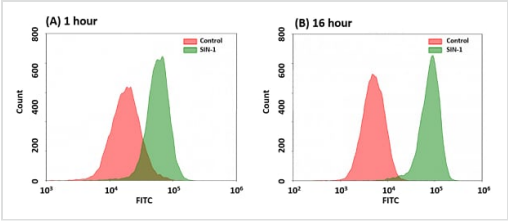
Product name	Peroxynitrite Assay Kit (Cell-based, Flow cytometry)
Detection method	Fluorescent
Assay type	Cell-based (quantitative)
Product overview	Due to its extremely short half-life and low steady-state concentration, it has been challenging to detect and understand the role of peroxynitrite ($ONOO^-$) in biological systems. In order to address this unmet need, ab233470 Peroxynitrite Assay Kit (Cell-based, Flow cytometry) provides a sensitive tool to monitor $ONOO^-$ levels in living cells. Peroxynitrite Sensor Green is developed as an excellent fluorescent probe, which can specifically react with intercellular $ONOO^-$ to generate a bright green fluorescent product. This kit is optimized for flow cytometry.
Notes	Peroxynitrite ($ONOO^-$) is a strong oxidizing species and a highly active nitrating agent. Peroxynitrite is formed from the reaction between superoxide radicals and nitric oxide generated in cells. It can damage a wide array of biomolecules including proteins, enzymes, lipids and nucleic acids, eventually contributing to cell death. Meanwhile, peroxynitrite can also have protective activities in vivo by contributing to host-defense responses against invading pathogens. Therefore, peroxynitrite is an essential biological oxidant involved in a broad range of physiological and pathological processes.
Platform	Microplate reader, Flow cytometer

Properties

Storage instructions	Store at -20°C. Please refer to protocols.

Components	**100 tests**
DMSO	1 x 100µl
Peroxynitrite Sensor Green	2 vials

Images



Detection of peroxynitrite in Jurkat cells following SIN-1 treatment

(A) Jurkat cells were co-incubated with Peroxynitrite Sensor Green and 200 µM SIN-1 in full medium at 37 ºC for 1 hour.

(B) Cells were pre-stained with Peroxynitrite Sensor Green for 1 hour, washed with PBS and then incubated with 200 µM SIN-1 in full medium at 37 ºC for 16 hours.

Cells stained with Peroxynitrite Sensor Green but without SIN-1 treatment were used as a control. Fluorescence intensity was measured using an ACEA NovoCyte flow cytometer in the FITC channel.

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