

## Product datasheet

# Nitric Oxide Assay Kit (Flow Cytometry - Red) ab219934

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### Overview

|                           |   |
|---------------------------|---|
| <b>Product name</b>       | Nitric Oxide Assay Kit (Flow Cytometry - Red)   |
| <b>Detection method</b>   | Flow cytometry-fluorescent  |
| <b>Sample type</b>        | Adherent cells, Suspension cells  |
| <b>Assay type</b>         | Cell-based  |
| <b>Species reactivity</b> | <b>Reacts with:</b> Mammals, Other species  |
| <b>Product overview</b>   | Nitric Oxide Assay Kit (Flow cytometry - Red) (ab219934) is a sensitive fluorometric assay to monitor intracellular nitric oxide (NO) levels in live cells using a flow cytometer. The assay uses a red dye that can react with NO to generate a bright red fluorescent product that can be easily detected at Ex/Em = 586/603 nm, using the same filter set as Texas Red®. |

**Notes** Nitric oxide (NO) is an important biological regulator involved in numbers of physiological and pathological processes. Altered NO production is implicated in various immunological, cardiovascular, neurodegenerative and inflammatory diseases. As a free radical, NO is rapidly oxidized and there is relatively low concentrations of NO existing in vivo. It has been challenging to detect and understand the role of NO in biological systems.

**Platform** Flow cytometer

### Properties

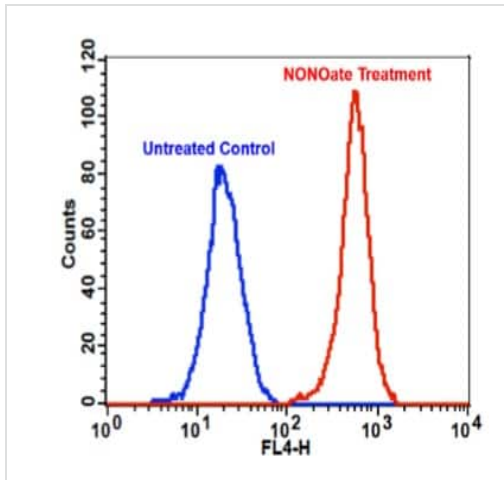
**Storage instructions** Store at -20°C. Please refer to protocols.

| Components               | 100 tests |
|--------------------------|-----------|
| 500X Red Dye             | 1 x 100µl |
| Assay Buffer             | 1 x 10ml  |
| NONOate Positive Control | 1 vial    |

**Relevance** Nitric oxide (NO) is a key vertebrate biological messenger, playing an important role in neurotransmission, vascular regulation, immune responses and apoptosis. NO, also known as "endothelium-derived relaxing factor" or "EDRF", is synthesized from L-arginine, oxygen and NADPH by various NO synthases. Most of the NO in the cell is oxidized to nitrite (NO<sub>2</sub><sup>-</sup>) and nitrate (NO<sub>3</sub><sup>-</sup>), and therefore the concentrations of these anions are generally as a quantitative measure

of NO production.

## Images



Nitric Oxide Assay Kit (Flow Cytometry-Red)  
(ab219934)

Exogenous nitric oxide (NO) production in Jurkat cells upon DEA/NONOate treatment (NO donor). Cells were incubated with the NO Red Dye in a 37°C/5% CO<sub>2</sub> incubator for 30 minutes, followed by a wash in HHBS buffer. Cells were then left untreated (blue) or further treated with 1 mM DEA/NONOate (red) in Assay Buffer at 37°C for an additional 30 minutes. Fluorescent intensities were measured with a FACScalibur flow cytometer (BD Biosciences) using FL4 channel.

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