

OxiSelect Intracellular Nitric Oxide (NO) Assay Kit

OxiSelect Intracellular Nitric Oxide (NO) Assay Kit (Fluorometric)

CATALOG #
AAA44531

PRODUCT SYNONYMS

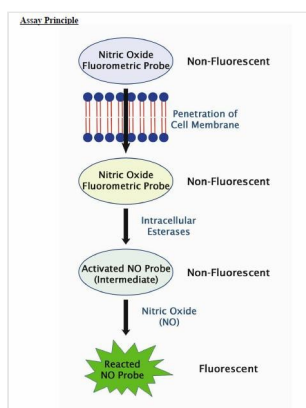
OxiSelect Intracellular Nitric Oxide (NO); OxiSelect Intracellular Nitric Oxide (NO) Assay Kit (Fluorometric); OxiSelect Intracellular Nitric Oxide (NO) assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Store the entire kit at -20 degree C. Avoid multiple freeze/thaws by aliquoting. The Nitric Oxide Fluorometric Probe is light sensitive and should be maintained in amber tubes.

IMAGES



Application Data

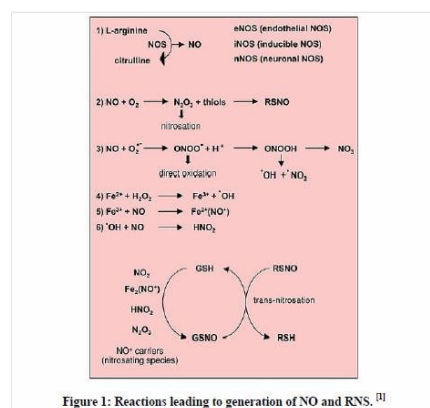


Figure 1: Reactions leading to generation of NO and RNS. [1]

Application Data

ADDITIONAL INFORMATION

Related Product Information for OxiSelect Intracellular Nitric Oxide (NO) assay kit

Background/Introduction: Reactive nitrogen species (RNS) and reactive oxygen species (ROS) work together to damage cells and have been implicated in the pathogenesis of several disease states. RNS are a family of molecules derived from nitric oxide (NO) and superoxide anion (O₂⁻), produced via nitric oxide synthase (NOS) and NADPH oxidase, respectively (Figure 1). Nitric oxide is an established mediator in vascular diseases, diabetes, renal ischemia, atherosclerosis, inflammatory diseases, and cancer. However, because of its extremely short half life, studies of NO and its physiological role have been challenging. The OxiSelect™ Intracellular Nitric Oxide Assay Kit is a cell-based assay for rapid detection of intracellular NO or NOS activity in cultured cells. In brief, the cell-permeant NO probe passively diffuses into cells and is deacetylated by cellular esterases to a non-fluorescent intermediate. When intracellular nitric oxide encounters this intermediate, it rapidly oxidizes to a highly fluorescent, triazolo-fluorescein analog. The fluorescence intensity is proportional to the NO levels within the cell cytosol (detection limit of ~3 nM). The kit's provided Nitric Oxide Fluorometric Probe is NO specific, has excellent photostability and pH stability, and is detected with standard fluorescein filters. The probe is suitable for flow cytometry, fluorescent microscopy, and fluorescent microplate detection. Each kit provides sufficient reagents to perform up to 96 assays, including blanks, standards, and unknown samples.

Product Categories/Family for OxiSelect Intracellular Nitric Oxide (NO) assay kit

Oxidative Stress/Damage; Reactive Oxygen Species (ROS) Assays; Intracellular Nitric Oxide Assay

References

1. Novo E, and Parola M. (2008) Fibrogenesis Tissue Repair, 1:5.
2. Ignarro, LJ. (2002) J. Physiol. Pharmacol. 53:503-514.
3. Hickok, JR and Thomas, DD. (2010) Curr. Pharm. Des. 16:381-391.
4. Thomas, DD et al. (2008) Free Radic. Biol. Med. 45:18-31

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/oxiselect-intracellular-nitric-oxide-no/44531>