

OxiSelect In Vitro Nitric Oxide (Nitrite / Nitrate) Assay Kit

OxiSelect In Vitro Nitric Oxide (Nitrite / Nitrate) Assay Kit (Fluorometric)

CATALOG #
AAA44599

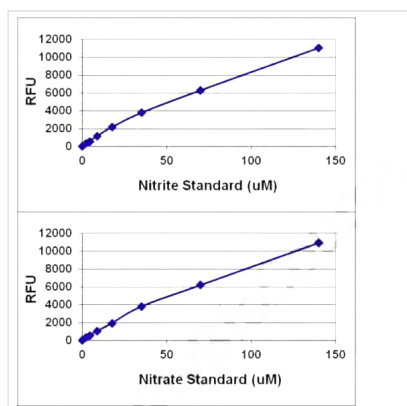
PRODUCT SYNONYMS

OxiSelect In Vitro Nitric Oxide (Nitrite / Nitrate); OxiSelect In Vitro Nitric Oxide (Nitrite / Nitrate) Assay Kit (Fluorometric); OxiSelect In Vitro Nitric Oxide (Nitrite / Nitrate) assay kit

PRODUCT SPECIFICATIONS

Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store the entire kit at -80 degree C. Avoid multiple freeze/thaws by aliquoting. The Enzyme Cofactor and 100X DAN Fluorometric Probe are light sensitive and should be maintained in amber tubes. Shipping: Ships with Dry Ice

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for OxiSelect In Vitro Nitric Oxide (Nitrite / Nitrate) assay kit

Background: Reactive nitrogen intermediates (RNI) and reactive oxygen intermediates (ROI) work together to damage cells and have been implicated in the pathogenesis of several disease states. RNI are a family of molecules derived from nitric oxide (NO) and superoxide anion (O₂⁻), produced via nitric oxide synthase (NOS) and NADPH oxidase, respectively. 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, direct quantitation of NO production remains challenging and unsuitable for most detection systems. Therefore, the common method for measurement of total NO has become the sum of its final oxidized products, nitrite (NO₂⁻) and nitrate (NO₃⁻) (Figure 1). The OxiSelect™ Nitric Oxide (Nitrite/Nitrate) Assay Kit is a simple, fluorometric assay that quantitatively measures NO in various samples by NO₂⁻/NO₃⁻ determination. First, the nitrate (NO₃⁻) in the sample is converted to nitrite (NO₂⁻) by nitrate reductase enzyme (Figure 2). Next, total nitrite is detected with the fluorescent probe DAN (2,3-diaminonaphthalene). Each kit provides sufficient reagents to perform up to 100 assays using a 96-well microtiter plate format, including blanks, standards and unknown samples. The kit is suitable for serum, plasma, urine, saliva, lysates, and media (see Preparation of Samples) with detection sensitivity limit of ~ 500 nM (in 50 uL sample volume).

Product Categories/Family for OxiSelect In Vitro Nitric Oxide (Nitrite / Nitrate) assay kit	Oxidative Stress/Damage; Reactive Oxygen Species (ROS) Assays; In Vitro Nitric Oxide Assay
References	1. Moncada, S. (1992) Acta Physiol. Scand. 145, 201-227. 2. Nathan, C. (1992) FASEB J. 6, 3051-3064. 3. Schreck, R. and Baeuerle, P.A. (1991) Trends Cell Biol. 1, 39-42. 4. Ignarro, L.J. (1990) Pharmacol. Toxicol. 67, 1-7. 5. Green, L.C., et al. (1982) Anal. Biochem. 126, 131-138.

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/assay-kits/oxiselect-in-vitro-nitric-oxide-nitrite-nitrate/44599>