CREATIVE BIOMART®
Assay Kit

Nitric Oxide Synthase (NOS) Activity Assay Kit (Colorimetric)

Product Information

Cat

Kit-2195

Cat.No. Kit-2195

Product Overview

Nitric oxide synthases (EC 1.14.13.39) (NOS) are a family of enzymes that catalyze the production of nitric oxide (NO) from L-arginine. Nitric oxide (NO) plays an important role in neurotransmission, vascular regulation, immune response and apoptosis. In presence of NADPH, FAD, FMN, (6R)-5,6,7,8-tetrahydrobiopterin, calmodulin and heme, NOS catalyzes a five-electron oxidation of the guanidino nitrogen of L-arginine with molecular oxygen to generate NO and L-citrulline. There are three isoforms of NOS: endothelial (eNOS), neuronal (nNOS), and inducible (iNOS). nNOS accounts for the production of NO in central nervous system, where NO participates in cell communication and information storage. eNOS produces NO in blood vessels and is involved in regulation of vascular function. In contrast to other isoforms, iNOS is expressed de novo under oxidative stress conditions and produces large amounts of NO as a part of body's defense mechanism. Nitric Oxide Synthase Activity Assay Kit provides an accurate and convenient method to assay NOS activity in a variety of samples. In this assay, nitric oxide generated by NOS undergoes a series of reactions and reacts with Griess Reagent 1 and 2 to generate a colored product with a strong absorbance at 540 nm. The assay is simple, sensitive and high-throughput adaptable and can detect as low as 5 μU of NOS activity.

Applications

Detection of NOS activity

Storage

-80°C

Shipping

Dry Ice

Size

Tel: 1-631-559-9269 1-516-512-3133

Email:info@creative-biomart.org

Fax:1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA

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100 assays

Kit Components

NOS Assay Buffer; NOS Dilution Buffer; NOS Substrate; NOS Cofactor 1; NOS Cofactor 2 (25X); Nitrate Reductase; NOS (Positive Control); Enhancer; Nitrite Standard; Griess Reagent 1; Griess Reagent 2

Target Species

Mammalian samples

Detection method Colorimetry (Abs: 540 nm)

Features & Benefits

Simple, HTP adaptable protocol
Sensitivity as low as 5 μU of NOS activity
Colorimetric detection

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