

# Nitric Oxide Synthase Inhibitor Assay Kit (Fluorometric) ab211086

## 1 图像

### 概述

产品名称	Nitric Oxide Synthase抑制剂Assay试剂盒(Fluorometric)
检测方法	Fluorescent
样品类型	Inhibitor compounds
检测类型	Quantitative
产品概述	Nitric Oxide Synthase Inhibitor Assay Kit (Fluorometric) (ab211086) provides a rapid, simple, sensitive and reliable test suitable for high-throughput screening of nitric oxide synthase (NOS) inhibitors. In this assay, nitric oxide (NO) generated by NOS undergoes a series of reactions and reacts with the fluorescent probe to generate a stable signal at Ex/Em = 360/450 nm, which is directly proportional to NOS activity. In the presence of a NOS-specific inhibitor, the formation of NO is reduced/abolished resulting in decrease or total loss of the fluorescence.

This simple and high-throughput adaptable assay can be used to screen/study/characterize potential inhibitors of NOS.

### 说明

This product is manufactured by BioVision, an Abcam company and was previously called K208 Nitric Oxide Synthase (NOS) Inhibitor Screening Kit (Fluorometric). K208-100 is the same size as the 100 test size of ab211086.

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.

### 平台

Microplate reader

### 性能

存放说明

Store at -80°C. Please refer to protocols.

组件	100 tests
NOS Assay Buffer	1 x 25ml
25X NOS Cofactor 2	1 x 100µl
DAN Probe	1 x 1ml
Enhancer II	1 vial
Nitrate Reductase II	1 vial
NO Inhibitor (DPI)	1 x 20µl
NOS Cofactor I	1 vial
NOS Dilution Buffer	1 x 1.5ml
NOS Enzyme	1 vial
NOS Substrate	1 x 500µl
Sodium Hydroxide	1 x 1ml

功能

Produces nitric oxide (NO) which is a messenger molecule with diverse functions throughout the body. In the brain and peripheral nervous system, NO displays many properties of a neurotransmitter. Probably has nitrosylase activity and mediates cysteine S-nitrosylation of cytoplasmic target proteins such SRR.

组织特异性

Isoform 1 is ubiquitously expressed: detected in skeletal muscle and brain, also in testis, lung and kidney, and at low levels in heart, adrenal gland and retina. Not detected in the platelets. Isoform 3 is expressed only in testis. Isoform 4 is detected in testis, skeletal muscle, lung, and kidney, at low levels in the brain, but not in the heart and adrenal gland.

序列相似性

Belongs to the NOS family.  
Contains 1 FAD-binding FR-type domain.  
Contains 1 flavodoxin-like domain.  
Contains 1 PDZ (DHR) domain.

结构域

The PDZ domain in the N-terminal part of the neuronal isoform participates in protein-protein interaction, and is responsible for targeting nNos to synaptic membranes in muscles. Mediates interaction with VAC14.

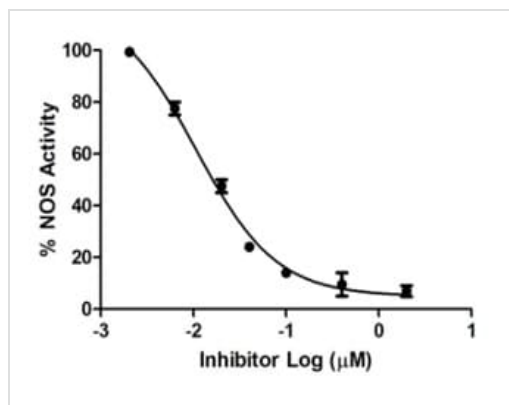
翻译后修饰

Ubiquitinated; mediated by STUB1/CHIP in the presence of Hsp70 and Hsp40 (in vitro).

细胞定位

Cell membrane > sarcolemma. Cell projection > dendritic spine. In skeletal muscle, it is localized beneath the sarcolemma of fast-twitch muscle fiber by associating with the dystrophin glycoprotein complex. In neurons, enriched in dendritic spines.

图片



Nitric Oxide Synthase Inhibitor Screening Kit (Fluorometric) (ab211086). Inhibition of Nitric Oxide Synthase (NOS) enzyme activity by diphenyleneiodonium chloride (DPI). IC<sub>50</sub> of Diphenyleneiodonium chloride was determined to be 20 nM. Assay was performed following the kit protocol.

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(Fluorometric) (ab211086)

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