

Anti-nNOS(neuronal) Antibody
Catalog # ABO10655**Specification**

Anti-nNOS(neuronal) Antibody - Product Information

Application	WB, IHC-P
Primary Accession	P29475
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Nitric oxide synthase, brain(NOS1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-nNOS(neuronal) Antibody - Additional Information

Gene ID 4842

Other Names

Nitric oxide synthase, brain, 1.14.13.39, Constitutive NOS, NC-NOS, NOS type I, Neuronal NOS, N-NOS, nNOS, Peptidyl-cysteine S-nitrosylase NOS1, bNOS, NOS1

Calculated MW

160970 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Cell membrane, sarcolemma; Peripheral membrane protein. 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 (By similarity).

Tissue Specificity

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.

Protein Name

Nitric oxide synthase, brain

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human nNOS(neuronal)(1418-1434aa IAFIEESKKDTDEVFSS), identical to the related mouse and rat sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the NOS family.

Anti-nNOS(neuronal) Antibody - Protein Information

Name NOS1 ([HGNC:7872](#))

Function

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 as SRR.

Cellular Location

Cell membrane, sarcolemma {ECO:0000250|UniProtKB:Q9Z0J4}; Peripheral membrane protein. Cell projection, dendritic spine {ECO:0000250|UniProtKB:P29476}. Note=In skeletal muscle, it is localized beneath the sarcolemma of fast-twitch muscle fiber by associating with the dystrophin glycoprotein complex (By similarity) In neurons, enriched in dendritic spines (By similarity) {ECO:0000250|UniProtKB:P29476, ECO:0000250|UniProtKB:Q9Z0J4}

Tissue Location

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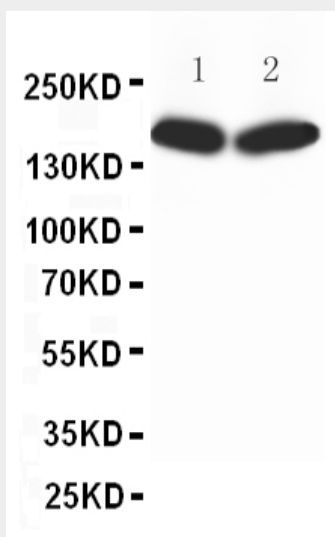
Anti-nNOS(neuronal) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

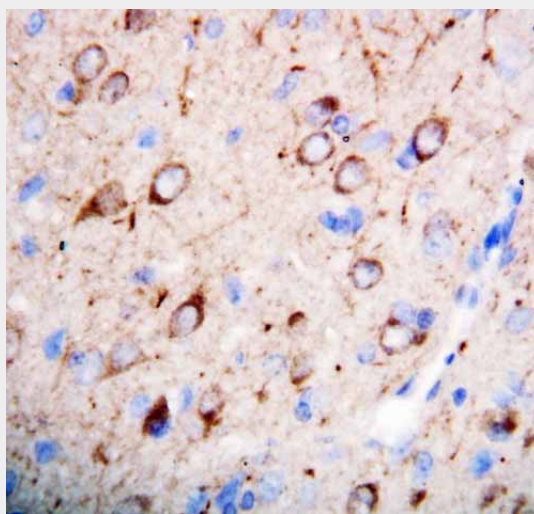
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

Anti-nNOS(neuronal) Antibody - Images



Anti-nNOS(neuronal) antibody, ABO10655, Western blottingAll lanes: Anti nNOS(neuronal)(ABO10655) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: MCF-7 Whole Cell Lysate at 40ugPredicted bind size: 160KDObserved bind size: 160KD



Anti-nNOS(neuronal) antibody, ABO10655, IHC(P)IHC(P): Rat Brain Tissue

Anti-nNOS(neuronal) Antibody - Background

Nitric oxide synthase 1 (neuronal), also known as NOS1, is an enzyme that in humans is encoded by the NOS1 gene. The protein encoded by this gene belongs to the family of nitric oxide synthases, which synthesize nitric oxide from L-arginine. Nitric oxide is a reactive free radical, which acts as a biologic mediator in several processes, including neurotransmission, and antimicrobial and antitumoral activities. In the brain and peripheral nervous system, nitric oxide displays many properties of a neurotransmitter, and has been implicated in neurotoxicity associated with stroke and neurodegenerative diseases, neural regulation of smooth muscle, including peristalsis, and penile erection. This protein is ubiquitously expressed, with high level of expression in skeletal muscle. Multiple transcript variants that differ in the 5' UTR have been described for this gene but the full-length nature of these transcripts is not known. Additionally, alternatively spliced transcript variants encoding different isoforms (some testis-specific) have been found for this gene.

Anti-nNOS(neuronal) Antibody - Citations

- [Chronic Intermittent Hypobaric Hypoxia Ameliorates Renal Vascular Hypertension Through Up-regulating NOS in Nucleus Tractus Solitarii.](#)