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Anti-Nitric Oxide Synthase, Brain(1-181) NOS1 Antibody (Monoclonal, NOS-B1)

Catalog # ABO10458

Specification

Anti-Nitric Oxide Synthase, Brain(1-181) NOS1 Antibody (Monoclonal, NOS-B1) - Product Information

Application	**WB**
Primary Accession	P29476
Host	**Mouse**
Isotype	**Mouse IgG1**
Reactivity	**Human, Rat, Pig**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Mouse IgG monoclonal antibody for Nitric Oxide Synthase, Brain (1-181) NOS1, nitric oxide synthase 1 (neuronal) (NOS1) detection. Tested with WB in Human;rat;goat;pig. No cross reactivity with other proteins.

Reconstitution
Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Anti-Nitric Oxide Synthase, Brain(1-181) NOS1 Antibody (Monoclonal, NOS-B1) - Additional Information

Gene ID 24598

Other Names
Nitric oxide synthase, brain, 1.14.13.39, BNOS, Constitutive NOS, NC-NOS, NOS type I, Neuronal NOS, N-NOS, nNOS, Peptidyl-cysteine S-nitrosylase NOS1, Nos1, Bnos

Calculated MW
160559 MW KDa

Application Details
Western blot, 0.5 µg/ml, Human, goat, pig, rat

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 (By similarity). In neurons, enriched in dendritic spines. .

Tissue Specificity
Isoform N-NOS-1 is expressed in brain and colorectum. Found in the Auerbach's plexus of the enteric nervous system. Isoform PNNOS is expressed in the penis, urethra, prostate, and skeletal muscle, and coexists with the cerebellar nnos in the pelvic plexus, bladder and liver, and is detectable in the cerebellum. .

Protein Name
Nitric oxide synthase, brain

Contents
Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.

Immunogen
Recombinant neuronal NOS fragment(amino acids 1-181) from rat brain.

Purification
Ascites

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, 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-Nitric Oxide Synthase, Brain(1-181) NOS1 Antibody (Monoclonal, NOS-B1) - Protein Information

Name Nos1 {ECO:0000312|RGD:3184}

Synonyms Bnos

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. Inhibitory transmitter for non-adrenergic and non-cholinergic nerves in the colorectum. Probably has nitrosylase activity and mediates cysteine S-nitrosylation of cytoplasmic target proteins such SRR. Inhibitory transmitter for non-adrenergic and non-cholinergic nerves in the colorectum.

Cellular Location
Cell membrane, sarcolemma {ECO:0000250|UniProtKB:Q9Z0J4}; Peripheral membrane protein. Cell projection, dendritic spine. 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 (PubMed:15548660) {ECO:0000250|UniProtKB:Q9Z0J4, ECO:0000269|PubMed:15548660}

Tissue Location
Isoform N-NOS-1 is expressed in brain and colorectum. Found in the Auerbach's plexus of the enteric nervous system. Isoform PNNOS is expressed in the penis, urethra, prostate, and skeletal muscle, and coexists with the cerebellar nnos in the pelvic plexus, bladder and liver, and is detectable in the cerebellum

Anti-Nitric Oxide Synthase, Brain(1-181) NOS1 Antibody (Monoclonal, NOS-B1) - Protocols

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

- Western Blot

- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Nitric Oxide Synthase, Brain(1-181) NOS1 Antibody (Monoclonal, NOS-B1) - Images

Anti-Nitric Oxide Synthase, Brain(1-181) NOS1 Antibody (Monoclonal, NOS-B1) - Background

Nitric Oxide Synthase 1(NOS1,neuronal NOS,nNOS1) is a messenger molecule, mediating the effect of endothelium-derived relaxing factor in blood vessels and the cytotoxic actions of macrophages, and playing a part in neuronal communication in the brain. It may be involved in neuronal cell death and damage in neurological illness. nNOS1 localized to the 12q24.2 region of human chromosome 12. It splice variant, expressed in testis, that encodes an NH2-terminal truncated protein of 1098 amino acids. nNOS cDNA clones were shown to contain different 5' terminal exons spliced to a common exon 2. Genomic cloning and sequence analysis demonstrate that the unique exons are positioned within 300 bp of each other but separated from exon 2 by an intron that is at least 20 kb in length. The neuronal isoform of nitric oxide synthase is highly expressed in mammalian skeletal muscle, it suggested a specific role for NOS1 in the local metabolic inhibition of alpha-adrenergic vasoconstriction in active skeletal muscle. The novel gaseous neuromediator nitric oxide is though to play an important role in development and plasticity. Despite this, gene-knockout mice lacking neuronal(Type I) nitric oxide synthase exhibit relatively normal brain development and behavior.