

**NOS1 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2120a**

**Specification**

**NOS1 Antibody - Product Information**

Application	<b>E, WB, IF, FC</b>
Primary Accession	<a href="#">P29475</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>161kDa KDa</b>

**Description**

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.

**Immunogen**

Purified recombinant fragment of human NOS1 (AA: 17-153) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**NOS1 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

**Dilution**

E~~1/10000  
WB~~1/500 - 1/2000  
IF~~1/200 - 1/1000  
FC~~1/200 - 1/400

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### Precautions

NOS1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### NOS1 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 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

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

### NOS1 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](#)