10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-NOS1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1739a

Specification

Goat Anti-NOS1 Antibody - Product Information

Application	**WB, IHC, IF, FC**
Primary Accession	P29475
Other Accession	NP_000611, 4842
Reactivity	**Human, Mouse**
Predicted	**Rat, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**160970**

Goat Anti-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

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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

Goat Anti-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

Goat Anti-NOS1 Antibody - Protocols

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

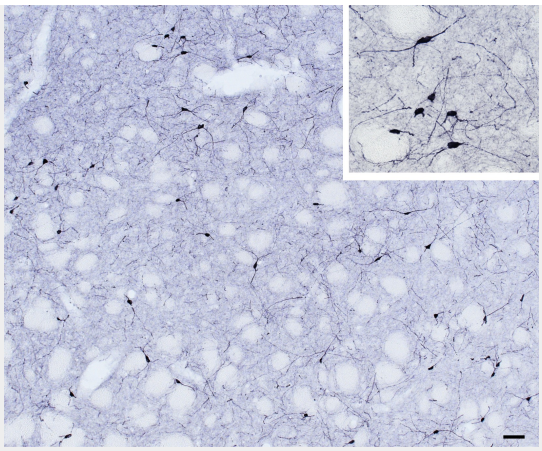
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-NOS1 Antibody - Images

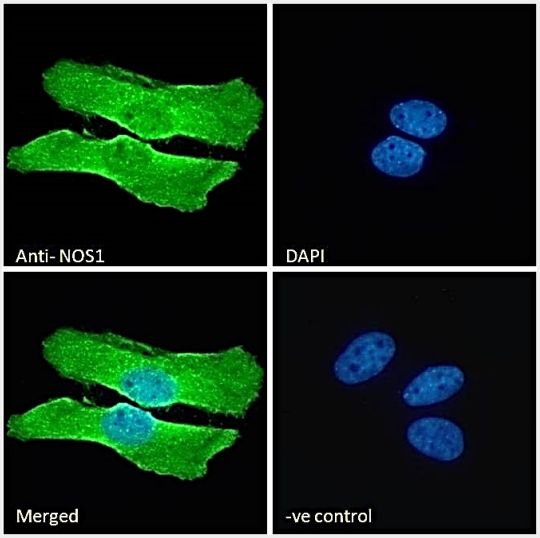


AF1739a (0.1 µg/ml) staining of Human Skeletal Muscle lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

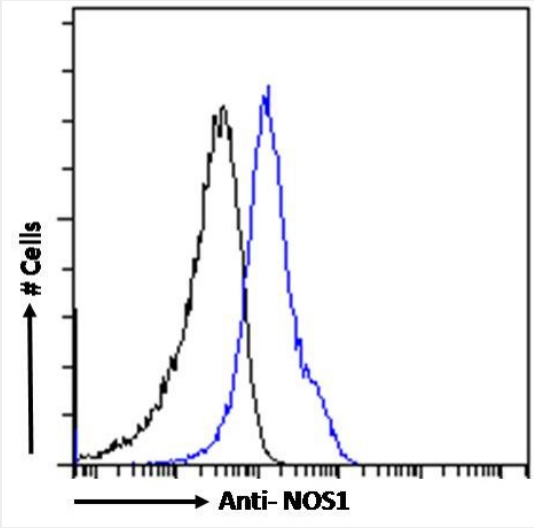
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EB05259 (scale bar: 50 µm; inset: 20 µm) immunostaining of NOS1 neurons in cryosection of a perfusion-fixed (4% PFA) mouse caudate-putamen. HRP-staining with Ni-DAB, after Biotin-SP-anti-goat (IgG) method. Data obtained by Drs. Éva Rumpler and Erik Hrabov



EB05259 Immunofluorescence analysis of paraformaldehyde fixed HeLa cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing membrane, cytoplasmic and nuclear staining. The



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EB05259 Flow cytometric analysis of paraformaldehyde fixed Kelly cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (lack line) fo

Goat Anti-NOS1 Antibody - Background

Nitric oxide is a reactive free radical which acts as a biologic mediator in several processes, including neurotransmission and antimicrobial and antitumoral activities. Nitric oxide is synthesized from L-arginine by nitric oxide synthases. This gene encodes a nitric oxide synthase which is highly expressed in skeletal muscle. Genetic variations in this gene are associated with infantile hypertrophic pyloric stenosis type 1.

Goat Anti-NOS1 Antibody - References

A Gradient of NOS1 Overproduction Alleles in European and Mediterranean Populations. Piras I, et al. Genet Test Mol Biomarkers, 2010 Sep 6. PMID 20818978.
Genetic analysis of nitric oxide synthase 1 variants in schizophrenia and bipolar disorder. Silberberg G, et al. Am J Med Genet B Neuropsychiatr Genet, 2010 Jul 19. PMID 20645313.
Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
The effects of NOS1 gene on asthma and total IgE levels in Taiwanese children, and the interactions with environmental factors. Wang TN, et al. Pediatr Allergy Immunol, 2010 Jul 1. PMID 20609134.
A putative cis-acting polymorphism in the NOS1 gene is associated with schizophrenia and NOS1 immunoreactivity in the postmortem brain. Cui H, et al. Schizophr Res, 2010 Aug. PMID 20605417.