abcam

ab1376

Anti-nNOS (neuronal) antibody

Anti-nNOS (neuronal) antibody (ab1376) is a goat polyclonal antibody detecting nNOS (neuronal) in **Flow Cytometry (Intra), ICC/IF**. Suitable for **Human**.

- Over 80 publications
- Trusted since 2002

Key facts

Isotype	IgG
Host species	Goat
Storage buffer	pH: 7.3 Preservative: 0.02% Sodium azide Constituents: Tris buffered saline, 0.5% BSA
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human Nitric oxide synthase, brain aa 1400 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P29475
Purification technique	Affinity purification Immunogen
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Target data

See full target information Nitric oxide synthase, brain

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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-nNOS (neuronal) antibody (ab1376) is a goat polyclonal antibody and is validated for use in Flow Cytometry (Intra), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

Trusted by the scientific community

Anti-nNOS (neuronal) (ab1376) was first used in a scientific publication in 2002 and has been cited over 80 times in peer-reviewed journals.

Reviewed by scientists
Anti-nNOS (neuronal) (ab1376) has over 20 independent reviews from customers.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	NNOS also known as nitric oxide synthase 1 or NOS1 is a critical enzyme in the nervous system. It catalyzes the production of nitric oxide from L-arginine. This enzyme weighing approximately 160 kDa is expressed in neurons and you can find it in regions like the brain and spinal cord. Notably nNOS is part of the NOS family which also includes eNOS and iNOS but its primary function is in neuronal tissues.
Biological function summary	NNOS plays a significant role in neurotransmission and neurovascular regulation. As a part of protein complexes nNOS closely interacts with other signaling molecules to modulate neuronal communication. The production of nitric oxide by nNOS acts as a neurotransmitter influencing brain functions such as synaptic plasticity and memory formation. Additionally due to its role in neuronal activity antibodies like anti-neuronal antibodies can have interactions that can be studied using various assays including the NOS assay.
Pathways	NNOS serves essential roles within the neuronal nitric oxide signaling pathway and the glutamatergic signaling pathway. In these contexts nNOS associates with proteins involved in cell signaling such as calmodulin which regulates its activity. By participating in these pathways nNOS contributes to the regulation of vascular tone and synaptic transmission linking it to neurological processes and supporting neuronal communication.
Associated diseases and disorders	NNOS shows significant connections to neurological disorders and cardiovascular diseases. In conditions like stroke and neurodegenerative diseases dysregulation of nNOS activity leads to excessive production of nitric oxide which can result in oxidative stress and neuronal damage. Furthermore its relation with eNOS in the cardiovascular system influences vascular function making it a critical player in hypertension studies. Understanding nNOS interactions through diseases highlights the possibility of targeted treatments using neuronal antibodies and anti-neuronal antibodies against specific pathways.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

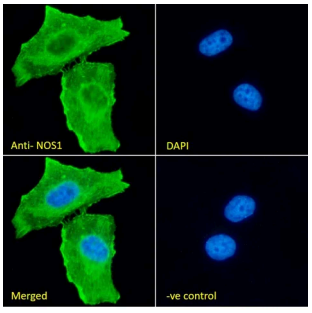
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

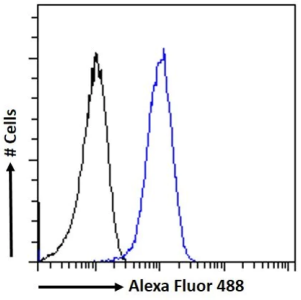
Full details and terms and conditions can be found here:
Terms & Conditions.

2 product images



Immunocytochemistry/ Immunofluorescence - Anti-nNOS (neuronal) antibody (ab1376)

Immunofluorescence analysis of paraformaldehyde fixed HeLa cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10µg/mL) followed by Alexa Fluor 488 secondary antibody (2µg/mL), showing plasma membrane and cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2µg/mL).



Flow Cytometry (Intracellular) - Anti-nNOS (neuronal) antibody (ab1376)

Flow cytometric analysis of paraformaldehyde fixed HeLa cells (blue line), permeabilized with 0.5% Triton. Primary incubation with ab1376 for 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.