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# NOS2A Antibody (Center)
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP11772c**

## Specification

### NOS2A Antibody (Center) - Product Information

| | |
|---|---|
| Application | **IF, WB, IHC-P, FC,E** |
| Primary Accession | P35228 |
| Other Accession | NP_000616.3 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Antigen Region | **830-860** |

### NOS2A Antibody (Center) - Additional Information

**Gene ID** 4843

**Other Names**
Nitric oxide synthase, inducible, Hepatocyte NOS, HEP-NOS, Inducible NO synthase, Inducible NOS, iNOS, NOS type II, Peptidyl-cysteine S-nitrosylase NOS2, NOS2, NOS2A

**Target/Specificity**
This NOS2A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 830-860 amino acids from the Central region of human NOS2A.

**Dilution**
IF~~1:25
WB~~1:2000
IHC-P~~1:25
FC~~1:25

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

**Precautions**
NOS2A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

### NOS2A Antibody (Center) - Protein Information

**Name** NOS2 (HGNC:7873)

**Synonyms** NOS2A

**Function** Produces nitric oxide (NO) which is a messenger molecule with diverse functions throughout the body (PubMed:7504305, PubMed:7531687, PubMed:7544004, PubMed:7682706). In macrophages, NO mediates tumoricidal and bactericidal actions. Also has nitrosylase activity and mediates cysteine S-nitrosylation of cytoplasmic target proteins such PTGS2/COX2 (By similarity). As component of the iNOS-S100A8/9 transnitrosylase complex involved in the selective inflammatory stimulus-dependent S-nitrosylation of GAPDH on 'Cys-247' implicated in regulation of the GAIT complex activity and probably multiple targets including ANXA5, EZR, MSN and VIM (PubMed:25417112). Involved in inflammation, enhances the synthesis of pro-inflammatory mediators such as IL6 and IL8 (PubMed:19688109).

**Cellular Location**
Cytoplasm, cytosol. Note=Localizes as discrete foci scattered throughout the cytosol and in the presence of SPSB1 and SPSB4, exhibits a more diffuse cytosolic localization.

**Tissue Location**
Expressed in the liver, retina, bone cells and airway epithelial cells of the lung. Not expressed in the platelets Expressed in chondrocytes (PubMed:7504305)

## NOS2A Antibody (Center) - 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

## NOS2A Antibody (Center) - Images

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized A549 (human lung adenocarcinoma epithelial cell line) cells labeling NOS2A with AP11772c at

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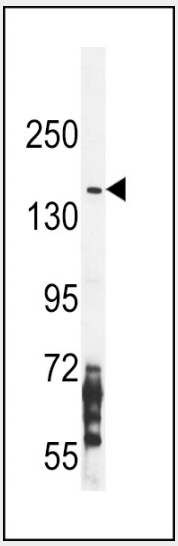
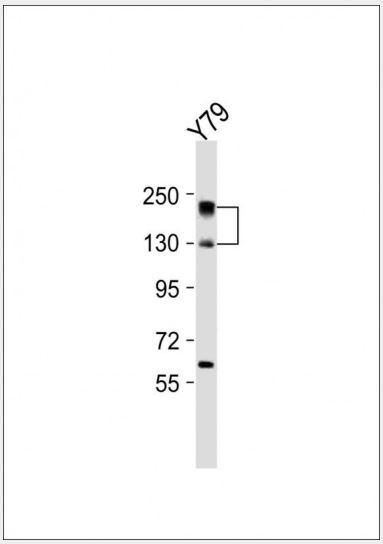
1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on A549 cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red).The nuclear counter stain is DAPI (blue).




NOS2A Antibody (Center) (Cat. #AP11772c) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the NOS2A antibody detected the NOS2A protein (arrow).




Anti-NOS2A Antibody (Center)at 1:2000 dilution + Y79 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 131 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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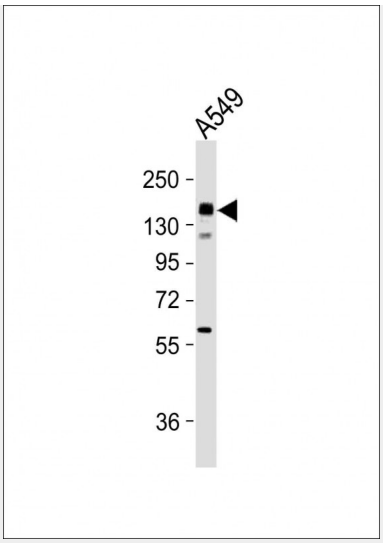


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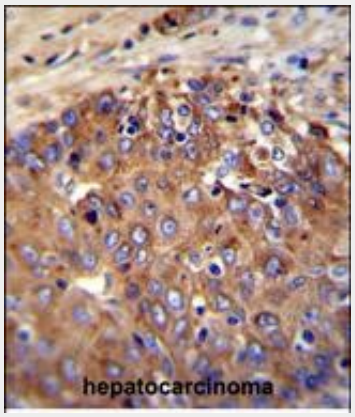
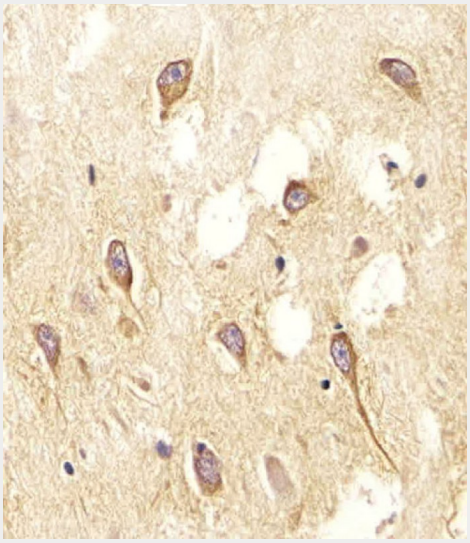



NOS2A Antibody (Center) (Cat. #AP11772c)immunohistochemistry analysis in formalin fixed and paraffin embedded human hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of NOS2A Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



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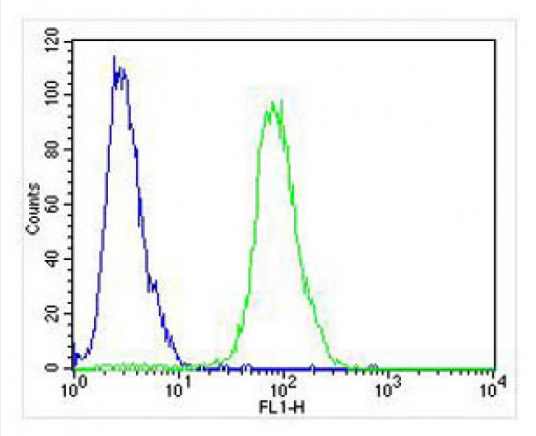
AP11772c staining NOS2A in Human brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.




Overlay histogram showing Jurkat cells stained with AP11772c (green line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP11772c, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (1583138) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

## NOS2A Antibody (Center) - Background

Nitric oxide is a reactive free radical which acts as a biologic mediator in several processes, including neurotransmission and antimicrobial and antitumoral activities. This gene encodes a nitric oxide synthase which is expressed in liver and is inducible by a combination of lipopolysaccharide and certain cytokines. Three related pseudogenes are located within the Smith-Magenis syndrome region on chromosome 17.

## NOS2A Antibody (Center) - References

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