abcam

ab115819

Anti-iNOS antibody [SP126]

Anti-iNOS antibody [SP126] (ab115819) is a rabbit monoclonal antibody detecting iNOS in **Flow Cytometry (Intra), IHC-P**. Suitable for **Human, Mouse**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 20 publications

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.6 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP126
Purification technique	Affinity purification Protein A/G
Specificity	Not suitable for mouse IHC-P.
Purification notes	Purified from TCS by Protein A/G.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	Boil tissue section in Citrate buffer, pH 6.0 for 10 minutes followed by cooling at room temperature for 20 minutes. Incubate with primary antibody for 10 minutes at room temperature.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat

Dilution info	-
Notes	-

ELISA

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information NOS2

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).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
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-iNOS antibody [SP126] (ab115819) is a rabbit recombinant monoclonal antibody and is validated for use in Flow Cytometry (Intra), Immunohistochemistry (IHC-P) in Human, Mouse samples.

Collaboration
Anti-iNOS [SP126] (ab115819) is a clone from the portfolio of Spring Bioscience (Roche) SP clones which have been optimised for immunohistochemistry (IHC).

Trusted by the scientific community
Anti-iNOS [SP126] (ab115819) was first used in a scientific publication in 2011 and has been cited over 20 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [SP126] also available for your convenience: ab115819, Carrier free - ab239990, ab279573, Alexa Fluor® 488 - ab317527, Alexa Fluor® 750 - ab320971, APC - ab310816, PE - ab310895, Alexa Fluor® 594 - ab311661, Alexa Fluor® 568 - ab312935

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

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

Activity summary	Inducible Nitric Oxide Synthase commonly referred to as iNOS or NOS2 is an important enzyme in the production of nitric oxide (NO) from L-arginine. This enzyme has a molecular weight of approximately 130 kDa and is expressed in various cell types including macrophages and hepatocytes. iNOS becomes active in response to inflammatory stimuli and can produce large amounts of NO for extended periods. Western blotting and iNOS ELISA kits are frequently used methods to detect and quantify the presence and activity of iNOS in different biological samples.
Biological function summary	INOS plays a significant role in the immune system by participating in the defense against pathogens. The enzyme is part of a molecular complex that generates NO which acts as a signaling molecule and has antimicrobial properties. iNOS activity is induced during immune responses and contributes to the elimination of bacteria and viruses through the production of reactive nitrogen species. Its expression is tightly regulated by cytokines and other signaling molecules that modulate the extent of its action.
Pathways	INOS integrates into the nitric oxide signaling pathway and is closely associated with inflammatory pathways. NO serves as a messenger within the nitric oxide signaling pathway facilitating processes like vasodilation and neurotransmission. iNOS works alongside other proteins such as cytokines like interferon-gamma that elevate its activity during inflammation and immune responses. The regulation of

	iNOS expression and activity plays an essential role in maintaining immune homeostasis and ensuring proper response to infections.
Associated diseases and disorders	INOS is linked to conditions characterized by excessive inflammation such as rheumatoid arthritis and sepsis. In these diseases overproduction of nitric oxide by iNOS can lead to tissue damage and exacerbate symptoms. Additionally iNOS is associated with the protein TNF-alpha as its expression is often driven by inflammatory mediators during disease states. Understanding the role of iNOS in such conditions provides insights into potential therapeutic targets for managing inflammatory diseases.

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

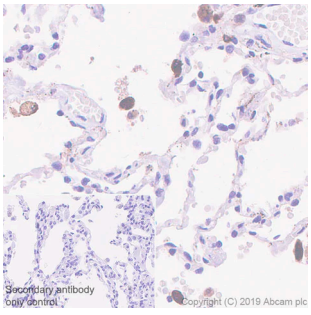
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-iNOS antibody [SP126] (ab115819)

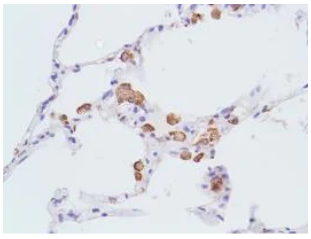
INOS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-iNOS antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung tissue sections labeling iNOS with Purified ab115819 at 1/100 dilution (0.65 µg/ml).
Heat mediated antigen retrieval was performed using sodium citrate buffer, pH 6.0.

Goat Anti-Rabbit IgG H&L (HRP) was used as the secondary antibody.

Negative control: PBS instead of the primary antibody.

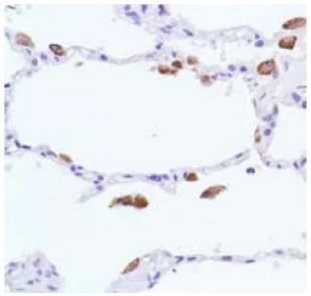
Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-iNOS antibody [SP126] (ab115819)

INOS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-iNOS antibody

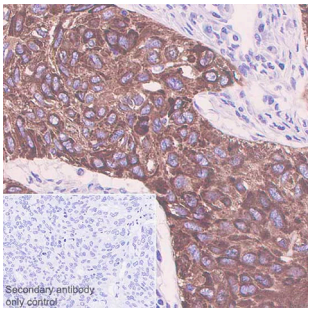
Formalin-fixed, paraffin-embedded human lung stained for iNOS using ab115819 at a dilution of 1/100 in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-iNOS antibody [SP126] (ab115819)

INOS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-iNOS antibody

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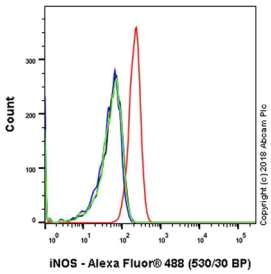
INOS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-iNOS antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue sections labeling iNOS with Purified ab115819 at 1/100 dilution (0.65 µg/ml). Heat mediated antigen retrieval was performed using sodium citrate buffer, pH 6.0.

Goat Anti-Rabbit IgG H&L (HRP) was used as the secondary antibody.

Negative control: PBS instead of the primary antibody.

Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-iNOS antibody [SP126] (ab115819)

INOS Flow Cytometry (Intracellular) staining using rabbit Anti-iNOS antibody

Flow cytometry analysis of RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cells treated with 0.1ug/ml Lipopolysaccharides for 24hours labeling iNOS with purified ab115819 (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) was used as a secondary antibody. Isotype control - Rabbit monoclonal IgG (ab172730) (Black). Unlableled control - Unlabelled cells (blue).

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