abcam

ab105389

Anti-Nestin antibody [SP103] - Neural Stem Cell Marker

Anti-Nestin antibody [SP103] (ab105389) is a rabbit monoclonal antibody detecting Nestin in **Western Blot, Flow Cytometry (Intra), IHC-P, IHC-Fr, ICC/IF**. Suitable for **Human**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 70 publications

Recombinant | RabMAb | KO Validated | 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	SP103
Purification technique	Affinity purification Protein A/G
Purification notes	Purified from TCS by protein A/G.

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Dog
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/100
Notes	-

Predicted

Species	Dog
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	Antigen retrieval: Boil tissue section in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at room temperature for 20 min.

Predicted

Species	Dog

Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/200
Notes	-

Predicted

Species	Dog
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Human
Dilution info	5 µg/mL
Notes	-

Predicted

Species	Dog
Dilution info	-
Notes	-

Target data

See full target information NES

Function	Required for brain and eye development. Promotes the disassembly of phosphorylated vimentin intermediate filaments (IF) during mitosis and may play a role in the trafficking and distribution of IF proteins and other cellular factors to

daughter cells during progenitor cell division. Required for survival, renewal and mitogen-stimulated proliferation of neural progenitor cells (By similarity).

Storage

Shipped at conditions	Conditional Ambient
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

Product Specifications
Anti-Nestin antibody [SP103] (ab105389) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in Flow Cyt (Intra), ICC/IF, IHC-Fr, IHC-P, WB in human samples.
Anti-Nestin antibody [SP103] (ab105389) specifically detects Nestin (UniProt ID: P48681; Molecular weight: 177kDa) and is sold in 100 µL, 500 µL and 1 mL selling sizes.
Anti-Nestin antibody [SP103] (ab105389) is a clone from the portfolio of Spring Bioscience (Roche) SP clones which have been optimised for immunohistochemistry (IHC).

Quality and Validation
Abcam's high quality manufacturing and validation processes ensure Anti-Nestin antibody [SP103] (ab105389) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.
The specificity of Anti-Nestin antibody [SP103] (ab105389) has been confirmed by testing in knockout samples.
Anti-Nestin antibody [SP103] (ab105389) has been cited over 72 times in peer reviewed journals and is trusted by the scientific community.
Anti-Nestin antibody [SP103] (ab105389) has 7 independent reviews from customers.

Related Products
Antibody clone SP103 is also available pre-conjugated to a variety of labels for your convenience - APC, PE, Alexa Fluor® 488, Alexa Fluor® 647, Alexa Fluor® 594, Alexa Fluor® 568, Alexa Fluor® 555, Alexa Fluor® 750 (ab310807, ab310889, ab310984, ab311106, ab311725, ab313002, ab313206, ab320885).
What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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.

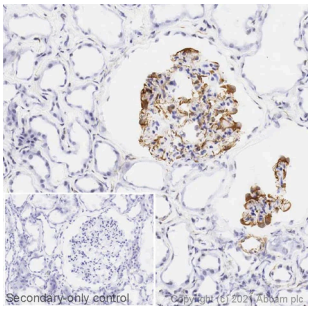
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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17 product images



Immunohistochemistry (Frozen sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

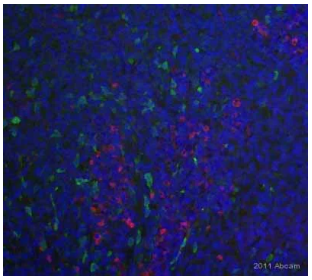
Nestin Immunohistochemistry (Frozen sections) staining using rabbit Anti-Nestin antibody

IHC image of Nestin staining in a section of frozen normal human kidney* performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab105389, 5ugml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

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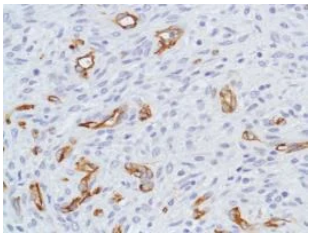
This image is courtesy of Hongwei Shao by customer review.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

ab105389 staining Nestin in human melanoma tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).

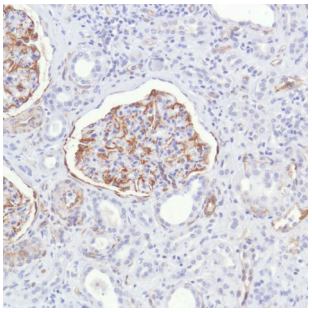
Tissue was fixed in formaldehyde and a heat mediated antigen retrieval step was performed using Tris EDTA pH 9.0. Samples were then permeabilized using 0.25% Triton X-100 blocked then incubated with ab105389 at a 1/100 dilution for 18 hours at 4°C. The secondary used was an Alexa-Fluor 594 (red) conjugated donkey anti-rabbit polyclonal used at a 1/100 dilution. (Green) tumor cells (blue) DAPI.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

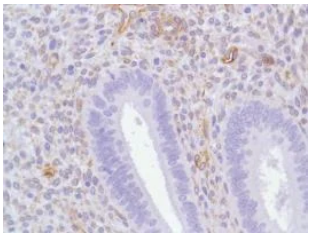
Formalin-fixed paraffin-embedded human ovary tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

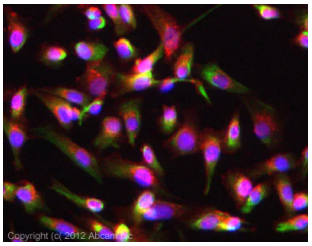
Formalin-fixed paraffin-embedded human kidney tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

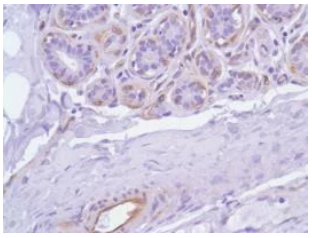
Formalin-fixed paraffin-embedded human endometrium tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Immunocytochemistry/ Immunofluorescence - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

Nestin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Nestin antibody

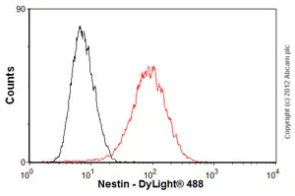
ICC/IF image of ab105389 stained SKNSH cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab105389, 1/200 dilution) overnight at +4°C. The secondary antibody (green) was ab96899, DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

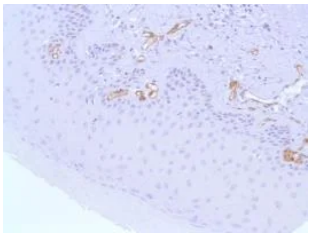
Formalin-fixed paraffin-embedded human breast tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Flow Cytometry (Intracellular) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

Nestin Flow Cytometry (Intracellular) staining using rabbit Anti-Nestin antibody

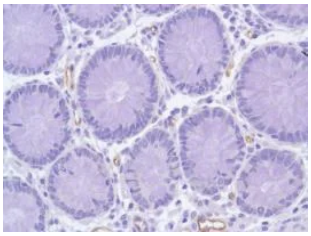
Overlay histogram showing SH-SY5Y cells stained with ab105389 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab105389, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

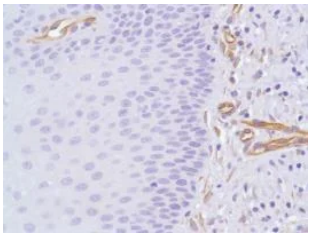
Formalin-fixed paraffin-embedded human skin tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

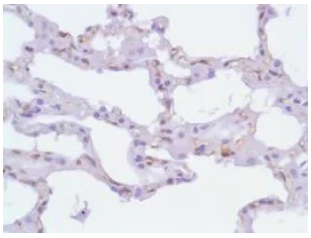
Formalin-fixed paraffin-embedded human colon tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

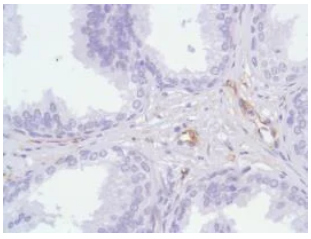
Formalin-fixed paraffin-embedded human cervix tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

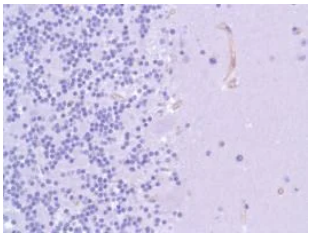
Formalin-fixed paraffin-embedded human lung tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

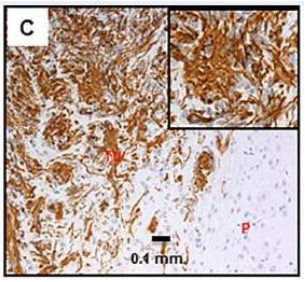
Formalin-fixed paraffin-embedded human prostate tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

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

Formalin-fixed paraffin-embedded human cerebellum tissue stained for Nestin using ab105389 at 1/100 dilution in immunohistochemical analysis.



Malchenko, S. et al PLoS One. 2017 Mar 1;12(3):e0173106. doi: 10.1371/journal.pone.0173106. eCollection 2017 Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

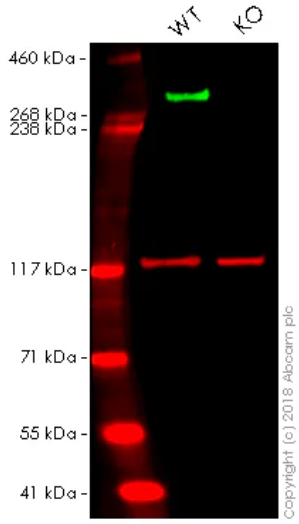
Nestin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Nestin antibody

BTIC markers in our CNS-PNET model tumors
Formalin-fixed, paraffin-embedded mouse primitive neural ectodermal tumor tissue was stained for Nestin using ab105389 at 1/30 dilution in immunohistochemical analysis.

Insert x20 magnification.

TU-tumor; P-parenchyma; V-ventricle; CP-choroid plexus

(From Figure 3C of Malchenko et al)



Western blot - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

Nestin Western blot staining using rabbit Anti-Nestin antibody

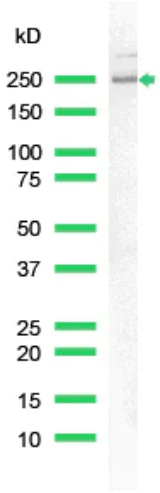
Lanes 1 - 2: Merged signal (red and green). Green - ab105389 observed at 300 kDa. Red - loading control, ab18058, observed at 117 kDa.
ab105389 was shown to specifically react with NES in wild-type HAP1 cells as signal was lost in NES knockout cells. Wild-type and NES knockout samples were subjected to SDS-PAGE. ab105389 and ab18058 (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/100 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389) at 1/100 dilution

Lane 1:
Wild-type HAP1 whole cell lysate at 20 µg

Lane 2:
NES knockout HAP1 whole cell lysate at 20 µg

Predicted band size: 177 kDa



Western blot - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389)

Nestin Western blot staining of HeLa cell lysate using rabbit Anti-Nestin antibody

All lanes:
Western blot - Anti-Nestin antibody [SP103] - Neural Stem Cell Marker (ab105389) at 1/100 dilution

All lanes:
HeLa cell lysate

Predicted band size: 177 kDa

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