

Product datasheet

Anti-Nestin antibody [196908] ab6320

KO VALIDATED

★★★★☆ 5 Abreviews 25 References 4 Images

Overview

Product name	Anti-Nestin antibody [196908]
Description	Mouse monoclonal [196908] to Nestin
Host species	Mouse
Specificity	Based on the result of immunocytochemistry on mouse and rat neural stem cells, this antibody has no reactivity with rodent Nestin. The clone number has been updated from (3k1) to (196908) both clone numbers name the same antibody clone.
Tested applications	Suitable for: IHC-Fr, IHC - Wholmount, IHC-FoFr, ICC, Flow Cyt, ELISA, WB, IP, ICC/IF
Species reactivity	Reacts with: Human Does not react with: Mouse, Rat
Immunogen	Nestin-transfected NS0 cells transfected with a human Nestin fragment aa residues 618-1618.
Positive control	Human neural progenitors and A172 cells.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium Azide Constituents: 50% Glycerol, PBS, pH 7.2
Purity	Protein G purified
Clonality	Monoclonal
Clone number	196908
Myeloma	NS0
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab6320** in the following tested applications.

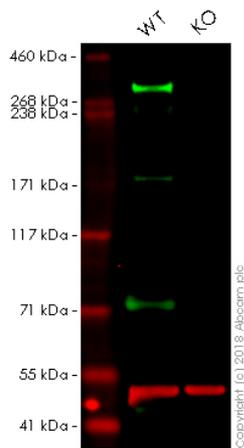
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr		Use a concentration of 0.1 µg/ml. When using aldehyde-based fixative, use at a concentration of 5 µg/ml (see Abreview).
IHC - Wholemount	★★★★☆	Use at an assay dependent concentration.
IHC-FoFr	★★★★★	Use at an assay dependent concentration.
ICC		Use a concentration of 5 - 10 µg/ml. Tested in human neural progenitors and A172 cells. Cells were fixed with 4% paraformaldehyde and 0.15% picric acid in PBS at RT for 20 min.
Flow Cyt		Use a concentration of 25 µg/ml. Fix and permeabilize cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ELISA		Use at an assay dependent concentration.
WB	★★★★☆	Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
ICC/IF	★★★★☆	Use at an assay dependent concentration.

Target

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.
Tissue specificity	CNS stem cells.
Sequence similarities	Belongs to the intermediate filament family.
Developmental stage	Upon terminal neural differentiation, nestin is down-regulated and replaced by neurofilaments.
Post-translational modifications	Constitutively phosphorylated. This increases during mitosis when the cytoplasmic intermediate filament network is reorganized.

Images



Western blot - Anti-Nestin antibody [196908] (ab6320)

All lanes : Anti-Nestin antibody [196908] (ab6320) at 1 μ g

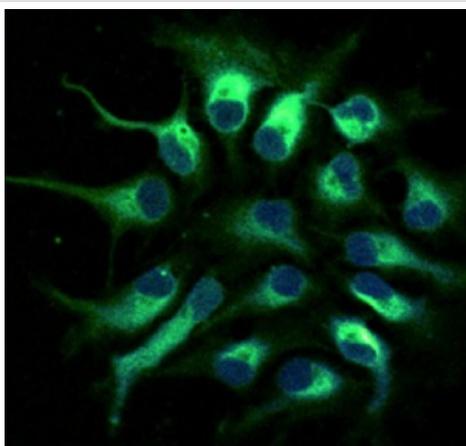
Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : NES knockout HAP1 whole cell lysate

Lysates/proteins at 20 μ g per lane.

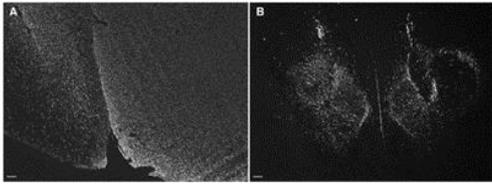
Lanes 1 - 2: Merged signal (red and green). Green - ab6320 observed at 300 kDa. Red - loading control, [ab176560](#), observed at 50 kDa.

ab6320 was shown to recognize NES in wild-type HAP1 cells as signal was lost at the expected MW in NES knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and NES knockout samples were subjected to SDS-PAGE. Ab6320 and [ab176560](#) (Rabbit anti-alpha Tubulin loading control) were incubated overnight at 4°C at 1 μ g/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed [ab216772](#) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed [ab216777](#) secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-Nestin antibody [196908] (ab6320)

Immunocytochemical analysis of human fetal neural progenitor cells, labeling Nestin with ab6320 (10 μ g/ml). Immunostaining was for 3 hours at room temperature. Counterstaining with DAPI (blue).

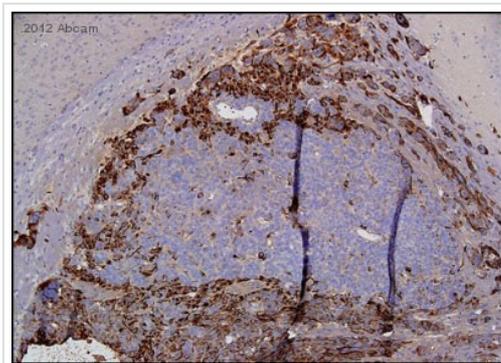


Immunohistochemistry (Frozen sections) - Anti-Nestin antibody [196908] (ab6320)

Image from Griffero F et al, J Biol Chem. 2009 Mar 13;284(11):7138-48. Epub 2009 Jan 14, Fig 1.

Tumorigenicity of human glioma-derived cells. Representative immunohistochemical analysis of brain tumors generated after orthotopic injection of isolated human glioblastoma cells. Immunofluorescence of mouse brains cryosections labeled with anti-human nestin antibody. A, diffuse infiltration of the injected and contralateral hemisphere (GBM 1). B, cells infiltrating the striatum ipsilateral and contralateral to the side of injection (GBM 2). Scale bar, 100 μ m. GBM xenografts recapitulate the morphology of corresponding tumors in human cancer patients.

For xenograft tumor analysis, mice were sacrificed, and cryopreserved brain sections were cut using a 10- μ m cryostat. Staining with hematoxylin-eosin identified sections bearing tumors. Briefly, brain sections were mounted on slides and stained with hematoxylin for 40 seconds and then counterstained with alcoholic eosin for 30 seconds. Cryosections containing tumors were permeabilized in PBS containing 0.5% Triton X-100 and



IHC - Wholemount - Anti-Nestin antibody [196908] (ab6320)

This image is courtesy of an anonymous Abreview

ab6320 staining Nestin in Human glioblastoma in mouse brain by Immunohistochemistry - Wholemount.

Samples were incubated with primary antibody (1/1000 in diluent) for 16 hours at 4°C. An HRP-conjugated goat anti-mouse polyclonal IgG was used as the secondary antibody.

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