Overview

Product name: Anti-NGF antibody

Description: Rabbit polyclonal to NGF

Host species: Rabbit

Specificity: Less than 1% cross-reactivity against recombinant human Brain Derived Neurotrophic Factor, Neurotrophin 3 and Neurotrophin 4/5 by ELISA.

Tested applications:
Suitable for: ICC/IF, Dot blot, Neutralising, WB, IHC-FoFr, IHC-Fr, IHC-P

Species reactivity:
Reacts with: Mouse, Rat, Chicken, Human
Does not react with: Cow

Immunogen:
Antigen purity was greater than 95% by PAGE.

Positive control:
Purchase matching WB positive control: Recombinant human NGF protein (Animal Free)

General notes:
This antibody has been shown to be useful for a variety of techniques and its specificity has been demonstrated by immunoblot.

Properties

Form: Liquid

Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Add glycerol to a final volume of 50% for extra stability and aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Purity: Protein G purified

Clonality: Polyclonal

Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab6199 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Function

Nerve growth factor is important for the development and maintenance of the sympathetic and sensory nervous systems. Extracellular ligand for the NTRK1 and NGFR receptors, activates cellular signaling cascades through those receptor tyrosine kinase to regulate neuronal proliferation, differentiation and survival. Inhibits metalloproteinase dependent proteolysis of platelet glycoprotein VI (PubMed:20164177).

Involvement in disease

Neuropathy, hereditary sensory and autonomic, 5

Sequence similarities

Belongs to the NGF-beta family.

Cellular localization

Secreted.

Images

Western blot - Anti-NGF antibody (ab6199)
ab6199 staining perfusion fixed rat brain and dorsal root ganglion by IHC-Fr. Animals were pre-perfused with Tris buffer pH 10, followed by 4% paraformadehyde and 15% of a saturated solution of picric acid. The brains were post-fixed in the same fixative overnight, cryoprotected in 20% sucrose for 24 hours, frozen and cut with a cryostat. Free floating immunostaining was performed. An Alexa Fluor® 488 conjugated goat anti-rat antibody was used as the secondary.

The image shows the staining obtained with this antibody using direct fluorescence in the rat cortex and dorsal root ganglion. The staining is not only of the cell body of the cortical neurons but a part of their processes.

ab6199 staining NGF in Human tendon tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with Dako FLEX Peroxidase blocking for 5 minutes at room temperature; antigen retrieval was by heat mediation in Dako high pH. Samples were incubated with primary antibody (1/250) for 30 minutes. An undiluted HRP-conjugated Goat polyclonal was used as the secondary antibody.

ICC/IF image of ab6199 stained MEF1 cells. The cells were 4% PFA 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 (ab6199, 10µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 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.
ab6199 at a 1/500 dilution staining rat brain tissue sections by Immunohistochemistry (Formalin-fixed paraffin-embedded sections). The tissue section was paraformaldehyde fixed and blocked with 2% BSA prior to incubation with the antibody for 24 hours. Bound antibody was detected using a biotinylated goat anti-rabbit IgG antibody.

This image is courtesy of an Abreview submitted by Grazyna Niewiadomska.

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