## Anti-NGF antibody ab6199

### 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**
- Full length native protein (purified) corresponding to Mouse NGF.

**Immunogen database link:** P01139

**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.

**Storage buffer**
- Constituent: PBS
- pH: 7.2-7.6 without preservatives.

**Purity**
- Protein G purified

**Clonality**
- Polyclonal

**Isotype**
- IgG

### Applications
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.

Target

Application | Abreviews | Notes
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ICC/IF | | Use a concentration of 10 µg/ml.
Dot blot | | Use at an assay dependent concentration.
Neutralising | | Use a concentration of 2 - 10 µg/ml. 2 ug/ml of ab6199 can neutralize 100 ng/ml mouse NGF.
WB | | Use a concentration of 1 µg/ml.
IHC-FoFr | | 1/300 - 1/5000. (see Abreview on perfusion fixed tissue for detailed protocol).
IHC-Fr | | Use at an assay dependent concentration.
IHC-P | | 1/500.

All lanes: Anti-NGF antibody (ab6199) at 5 µg/ml

Lane 1: rhNGF protein at 100 µg
Lane 2: Mouse salivary gland tissue lysate at 50 µg

ab6199 detects a strong band at 13 kDa consistent with the expected molecular weight of mature NGF monomer.
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-rabbit 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.

Anti-NGF antibody (ab6199) at 1 µg/ml + Active human NGF full length protein (ab69759) at 0.1 µg

**Secondary**
Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Exposure time:** 30 seconds

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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