Product datasheet

Anti-NGF antibody [EP1320Y] ab52918

Overview

Product name: Anti-NGF antibody [EP1320Y]
Description: Rabbit monoclonal [EP1320Y] to NGF
Host species: Rabbit
Tested applications: Suitable for: ICC/IF, WB, IHC-P
Species reactivity: Reacts with: Mouse, Rat, Human
Immunogen: Synthetic peptide within Human NGF aa 200-300. The exact sequence is proprietary.
(Peptide available as ab154297)
General notes: 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 production
For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.
Avoid freeze / thaw cycle.
Storage buffer: pH: 7.20
Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

3 Abreviews 21 References 9 Images
Purity: Protein A purified
Clonality: Monoclonal
Clone number: EP1320Y
Isotype: IgG

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.

Applications

Our Abpromise guarantee covers the use of ab52918 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>1/300.</td>
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<tr>
<td>IHC-P</td>
<td>4/5/5/5/5</td>
<td>1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocol.</td>
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Target

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
**All lanes:** Anti-NGF antibody [EP1320Y] (ab52918) at 1/1000 dilution

**Lane 1:** Wild-type HeLa cell lysate  
**Lane 2:** NGF knockout HeLa cell lysate  
**Lane 3:** Human fetal brain tissue lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 27 kDa  
**Observed band size:** 32 kDa  
why is the actual band size different from the predicted?

**Lanes 1-3:** Merged signal (red and green). Green – ab52918 observed at 32 kDa. Red - loading control, ab7291 observed at 50 kDa.

ab52918 was shown to react with NGF in wild-type HeLa cells in Western blot. Loss of signal was observed when knockout sample ab257004 was used. Wild-type and NGF knockout samples were subjected to SDS-PAGE. ab52918 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (ab7291) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti- Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti- Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.
All lanes: Anti-NGF antibody [EP1320Y] (ab52918) at 1/1000 dilution (purified)

Lane 1: Human fetal brain lysate
Lane 2: Human fetal thymus lysate
Lane 3: HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes: HRP conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 27 kDa
Observed band size: 32 kDa
why is the actual band size different from the predicted?

Blocking Buffer: 5% NFDM/TBST
Dilution Buffer: 5% NFDM/TBST

Anti-NGF antibody [EP1320Y] (ab52918) at 1/1000 dilution (purified) + Mouse thyroid lysate at 20 µg

Secondary
HRP conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 27 kDa
Observed band size: 32 kDa
why is the actual band size different from the predicted?

Blocking Buffer: 5% NFDM/TBST
Dilution Buffer: 5% NFDM/TBST
Western blot - Anti-NGF antibody [EP1320Y] (ab52918)

Anti-NGF antibody [EP1320Y] (ab52918) at 1/2000 dilution (purified) + Rat thyroid lysate at 20 µg

Secondary
HRP conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 27 kDa
Observed band size: 32 kDa

why is the actual band size different from the predicted?

Blocking Buffer: 5% NFDM/TBST
Dilution Buffer: 5% NFDM/TBST

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NGF antibody [EP1320Y] (ab52918)

Immunohistochemical staining of paraffin embedded human cerebral cortex with purified ab52918 at a working dilution of 1 in 250. The secondary antibody used is ab97051 Goat Anti-Rabbit IgG H&L (HRP) at a dilution of 1/500. The sample is counterstained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.
Immunofluorescence staining of U87-MG cells with purified ab52918 at a working dilution of 1 in 300, counter-stained with DAPI. Tubulin was stained with mouse anti-tubulin at a dilution of 1/1000 (ab7291) and Alexa Fluor® 594 goat anti-mouse at a dilution of 1/500 (ab150120). The secondary antibody was ab150077 Alexa Fluor® 488 goat anti rabbit, used at a dilution of 1 in 500. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative controls are shown in the bottom middle and right hand panels - for the first negative control, purified ab52918 was used at a dilution of 1/200 followed by an Alexa Fluor® 555 goat anti-mouse antibody at a dilution of 1/500 and for the second negative control mouse primary antibody (ab7291) and anti-rabbit secondary antibody (ab15007) were used.

Anti-NGF antibody [EP1320Y] (ab52918) at 1/500 dilution (unpurified) + fetal thyroid tissue at 10 µg

**Secondary**
Goat anti rabbit IgG HRP antibody at 1/2000 dilution

**Predicted band size:** 27 kDa
**Observed band size:** 27 kDa
Immunohistochemical staining of paraffin embedded human brain using unpurified ab52918 at 1/50-1/100 dilution. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Immunohistochemical staining of NGF mouse tissue sections (formalin/PFA-fixed paraffin-embedded tissue sections) with unpurified ab52918. The sections were formaldeyde fixed, subjected to heat mediated antigen retrieval and blocked for 10 minutes at 25°C. The primary antibody was diluted 1/50 and incubated with the sample for 1 hour at 25°C. An HRP polymer anti-rabbit IgG system was used undiluted, as the secondary antibody.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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