

# Anti-GAP43 antibody - Neuronal Marker ab16053

★★★★☆ [12 Abreviews](#) [65 References](#) [3 Images](#)

## Overview

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<b>Product name</b>	Anti-GAP43 antibody - Neuronal Marker
<b>Description</b>	Rabbit polyclonal to GAP43 - Neuronal Marker
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody does not perform well in IHC-P (abreview 21090, 21089)
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC (PFA fixed) <b>Unsuitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat <b>Predicted to work with:</b> Human, Chimpanzee 
<b>Immunogen</b>	Synthetic peptide corresponding to Rat GAP43 aa 200 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as <a href="#">ab16379</a> )
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab16053 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
<b>WB</b>	★★★★★ (3)	Use a concentration of 1 µg/ml. Detects a band of approximately 43-53 kDa (predicted molecular weight: 43-53 kDa).
<b>IHC (PFA fixed)</b>		Use at an assay dependent concentration.

**Application notes** Is unsuitable for IHC-P.

## Target

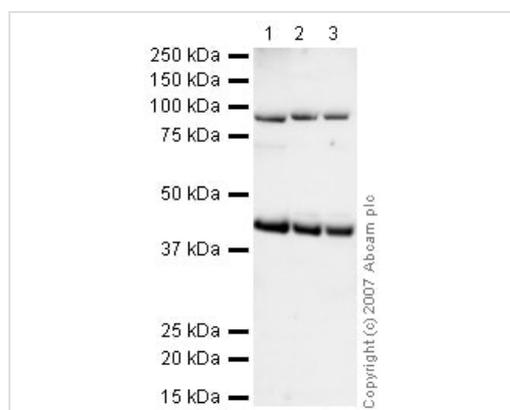
**Function** This protein is associated with nerve growth. It is a major component of the motile "growth cones" that form the tips of elongating axons.

**Sequence similarities** Belongs to the neuromodulin family.  
Contains 1 IQ domain.

**Post-translational modifications** Phosphorylation of this protein by a protein kinase C is specifically correlated with certain forms of synaptic plasticity.

**Cellular localization** Cell membrane. Cell projection > growth cone membrane. Cell junction > synapse. Cytoplasmic surface of growth cone and synaptic plasma membranes.

## Images



Western blot - Anti-GAP43 antibody - Neuronal Marker (ab16053)

**All lanes** : Anti-GAP43 antibody - Neuronal Marker (ab16053) at 1 µg/ml

**Lane 1** : spinal cord chung rat 1

**Lane 2** : spinal cord chung rat 2

**Lane 3** : spinal cord chung rat 3

Lysates/proteins at 20 µg per lane.

### Secondary

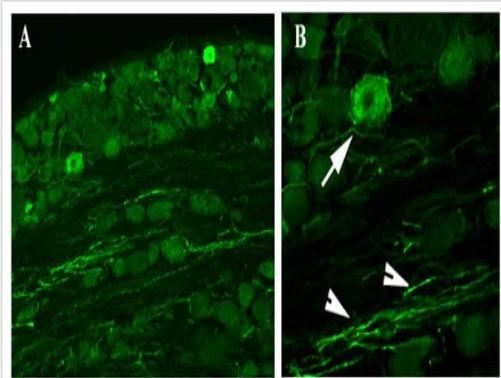
**All lanes** : Dako Goat polyclonal to Rabbit IgG (HRP) at 1/2000 dilution

Performed under reducing conditions.

**Predicted band size:** 43-53 kDa

**Observed band size:** 43 kDa

**Additional bands at:** 90 kDa (possible multimer)



Immunohistochemistry (PFA fixed) - Anti-GAP43 antibody - Neuronal Marker (ab16053)

This image is courtesy of Sophie Pezet, Univ London Kings Coll, United Kingdom

Immunofluorescent staining obtained with ab16053 Rabbit polyclonal to GAP43 in rat dorsal root ganglion, 2 weeks after a spinal nerve injury. The staining is localised in the cytoplasm of some lesioned neurons (arrow in B) and in many axons (arrow heads in B). Image B (X40 objective) is a higher magnification of A (X20). The staining disappeared completely when the antibody was pre-incubated with the immunising (blocking) peptide ([ab16379](#)).

Protocol details: Rats were intracardially perfused with 4% paraformaldehyde, DRG tissue was post-fixed overnight in the same fixative, cryoprotected in 20% sucrose and frozen in OCT. IHC free floating was performed on the fixed, frozen and cut (20µm sections) rat tissue. Primary antibody ab16053 was incubated overnight at room temperature at 1/300. Secondary antibody Alexa fluor 488 was incubated at 1/1000 for 2 hours at room temperature.



Western blot - Anti-GAP43 antibody - Neuronal Marker (ab16053)

Anti-GAP43 antibody - Neuronal Marker (ab16053) at 1 µg/ml + Spinal Cord (Mouse) Tissue Lysate at 10 µg

### Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 43-53 kDa

**Observed band size:** 43 kDa

**Additional bands at:** 100 kDa, 50 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 8 minutes

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