abcam

Product datasheet

Anti-Neuroglycan C antibody ab31946

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Overview

Product name	Anti-Neuroglycan C antibody
Description	Rabbit polyclonal to Neuroglycan C
Host species	Rabbit
Specificity	From Mar 2024, QC testing of replenishment batches of this polyclonal changed. All tested and expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch, please contact our Scientific Support who will be happy to help.
Tested applications	**Suitable for:** ICC/IF, IHC-FoFr, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Cow
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 450 - 550 of Mouse Neuroglycan C. Read Abcam's proprietary immunogen policy (Peptide available as **ab32755**.)
Positive control	This antibody gave a positive signal in the following lysates: Spinal Cord (Mouse) Tissue Lysate Spinal Cord (Rat) Lysate. Brain (Mouse) Tissue Lysate Brain (Rat) Tissue Lysate
General notes	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. 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&As

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	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.

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab31946 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
ICC/IF		
IHC-FoFr	★★★☆☆ (1)	
WB		

Application notes

ICC/IF: Use at a concentration of 1 µg/ml.
IHC-FoFr: 1/300 (See abreview for more details)
WB: Use at a concentration of 1 µg/ml. Detects a band of approximately 60,45 kDa (predicted molecular weight: 60,58,48 kDa).

Not yet tested in other applications.
Optimal dilutions/concentrations should be determined by the end user.

Target

Function May function as a growth and differentiation factor involved in neuritogenesis. May induce ERBB3 activation.

Tissue specificity Restricted to brain (at protein level).

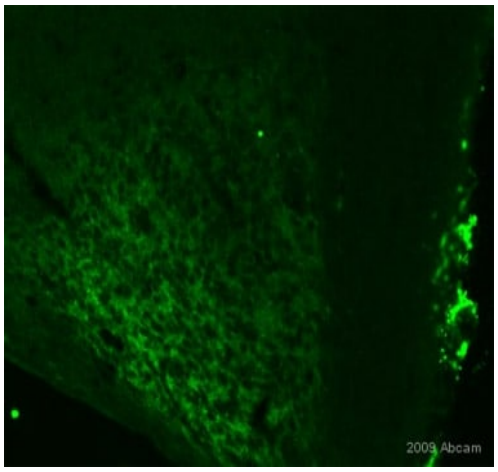
Sequence similarities Contains 1 EGF-like domain.

Developmental stage Expressed in brain of 3 months, 5 and 10-year-old individuals.

Post-translational modifications N-glycosylated.
O-glycosylated; contains chondroitin sulfate glycans. Part-time proteoglycan, expressed in part as a proteoglycan exhibiting chondroitin sulfate glycans and in part as a non-proteoglycan form. The relative amount of both forms depends on tissues and tissues maturation.
Phosphorylated; in intracellular and extracellular parts.

Cellular localization Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus membrane. In neurons, localizes to synaptic junctions (By similarity). Also detected in the endoplasmic reticulum and the Golgi (By similarity). Partially enriched in lipid rafts.

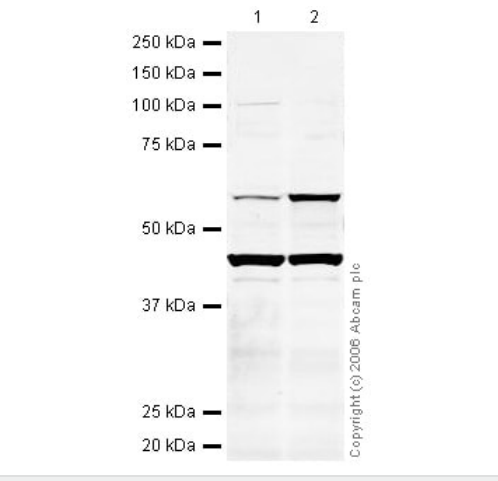
Images



Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-Neuroglycan C antibody (ab31946)

ab31946 staining Neuroglycan C in rat brain tissue section by Immunohistochemistry (PFA perfusion fixed frozen sections). Tissue from 4% PFA perfused animals underwent overnight fixation in 4% paraformaldehyde, cryoprotected in 30% sucrose and cut using cryostat.The primary antibody was diluted, 1/300 (PBS + 0.3% Triton X100) and incubated with sample for 18 hours at 20°C. An Alexa Fluor® 488 conjugated goat polyclonal to rabbit IgG was used at 1/1000 dilution, as secondary.

This image is courtesy of an Abreviewsubmitted by Dr Sophie Pezet.



Western blot - Anti-Neuroglycan C antibody (ab31946)

All lanes : Anti-Neuroglycan C antibody (ab31946) at 1 µg/ml

Lane 1 : Mouse Spinal Cord Lysate
Lane 2 : Rat Spinal Cord Lysate

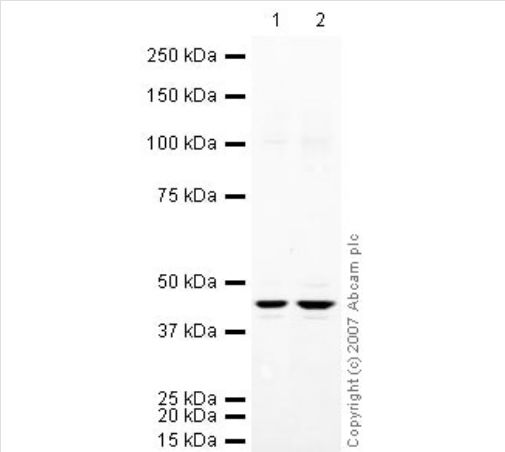
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/15000 dilution

Performed under reducing conditions.

Predicted band size: 60,58,48 kDa
Observed band size: 45,60 kDa

It is impossible to conclude from the data whether the higher observed band is Neuroglycan C isoform 3 (60 kDa) or Neuroglycan C isoform 1 (57 kDa). The epitope for this antibody is present in all 3 isoforms of the Neuroglycan C protein. We suspect the lower band is Isoform 2.



Western blot - Anti-Neuroglycan C antibody (ab31946)

All lanes : Anti-Neuroglycan C antibody (ab31946) at 1 µg/ml

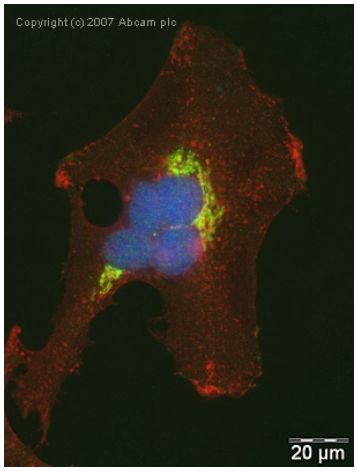
Lane 1 : Brain (Mouse) Tissue Lysate
Lane 2 : Brain (Rat) Tissue Lysate - normal tissue

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 60,58,48 kDa
Observed band size: 45 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Neuroglycan C antibody (ab31946)

ICC/IF image of ab31946 stained human HeLa cells. The cells were methanol fixed (5 min), permabilised in TBS-T (20 min) and incubated with the antibody (ab31946, 1µg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to quench autofluorescence and block non-specific protein-protein interactions. 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). DAPI was used to stain the cell nuclei (blue).

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