abcam

Product datasheet

Anti-NG2 antibody [132.38] ab50009

10 Abreviews 48 References 1 Image

Overview

Product name	Anti-NG2 antibody [132.38]
Description	Mouse monoclonal [132.38] to NG2
Host species	Mouse
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Rat **Does not react with:** Mouse
Immunogen	Tissue, cells or virus. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Rat brain, spinal cord and hippocampus tissue lysate.
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. 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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 6.97% L-Arginine
Purity	Protein G purified
Primary antibody notes	This antibody is derived from the hybridoma 132.38 produced by the fusion of mouse myeloma cells (P3XAg8.653) and splenocytes from BALB/c mice.
Clonality	Monoclonal
Clone number	132.38

Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab50009 in the following tested applications.

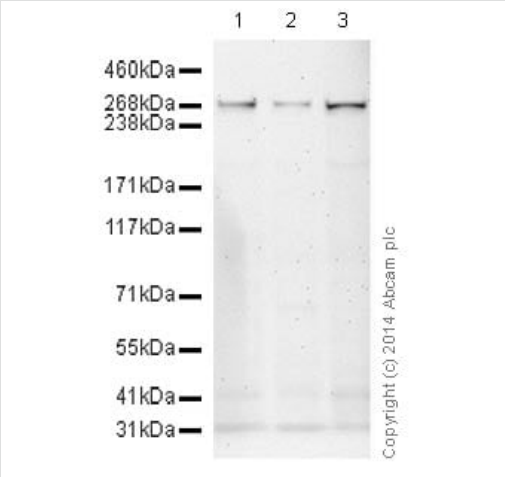
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 5 µg/ml. Detects a band of approximately 251 kDa (predicted molecular weight: 251 kDa). Abcam recommends using BSA as the blocking agent.

Target

Function	Proteoglycan playing a role in cell proliferation and migration which stimulates endothelial cells motility during microvascular morphogenesis. May also inhibit neurite outgrowth and growth cone collapse during axon regeneration. Cell surface receptor for collagen alpha 2(VI) which may confer cells ability to migrate on that substrate. Binds through its extracellular N-terminus growth factors, extracellular matrix proteases modulating their activity. May regulate MPP16-dependent degradation and invasion of type I collagen participating in melanoma cells invasion properties. May modulate the plasminogen system by enhancing plasminogen activation and inhibiting angiostatin. Functions also as a signal transducing protein by binding through its cytoplasmic C-terminus scaffolding and signaling proteins. May promote retraction fiber formation and cell polarization through Rho GTPase activation. May stimulate alpha-4, beta-1 integrin-mediated adhesion and spreading by recruiting and activating a signaling cascade through CDC42, ACK1 and BCAR1. May activate FAK and ERK1/ERK2 signaling cascades.
Tissue specificity	Detected only in malignant melanoma cells.
Sequence similarities	Contains 15 CSPG (NG2) repeats. Contains 2 laminin G-like domains.
Post-translational modifications	O-glycosylated; contains glycosaminoglycan chondroitin sulfate which are required for proper localization and function in stress fiber formation (By similarity). Involved in interaction with MMP16 and ITGA4. Phosphorylation by PRKCA regulates its subcellular location and function in cell motility.
Cellular localization	Apical cell membrane. Cell projection > lamellipodium membrane. Localized at the apical plasma membrane it relocalizes to the lamellipodia of astrocytoma upon phosphorylation by PRKCA. Localizes to the retraction fibers. Localizes to the plasma membrane of oligodendrocytes.

Images



Western blot - Anti-NG2 antibody [132.38] (ab50009)

All lanes : Anti-NG2 antibody [132.38] (ab50009) at 1 µg/ml

Lane 1 : Rat brain tissue lysate
Lane 2 : Rat spinal cord tissue lysate
Lane 3 : Rat hippocampus tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (**ab97040**) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 251 kDa
Observed band size: 270 kDa
Additional bands at: 31 kDa (possible non-specific binding), 41 kDa (possible non-specific binding)

Exposure time: 20 minutes

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

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