

Product datasheet

Anti-NG2 antibody [EPR20244] ab183929

Recombinant RabMAb

★★★★☆ [2 Abreviews](#) [1 References](#) [6 Images](#)

Overview

Product name	Anti-NG2 antibody [EPR20244]
Description	Rabbit monoclonal [EPR20244] to NG2
Host species	Rabbit
Tested applications	Suitable for: WB, ICC/IF, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: A-375 and MeWo whole cell lysates; Human skin lysate. IHC-P: Human melanoma and glioma tissues. ICC/IF: A-375 and MeWo cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20244
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab183929 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		1/1000. Predicted molecular weight: 251 kDa.
ICC/IF		1/100.
IHC-P	★★★★★ (1)	1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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 MMP16-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.

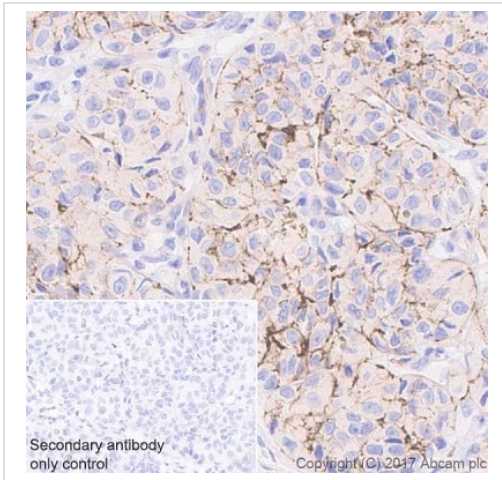
Post-translational modifications

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

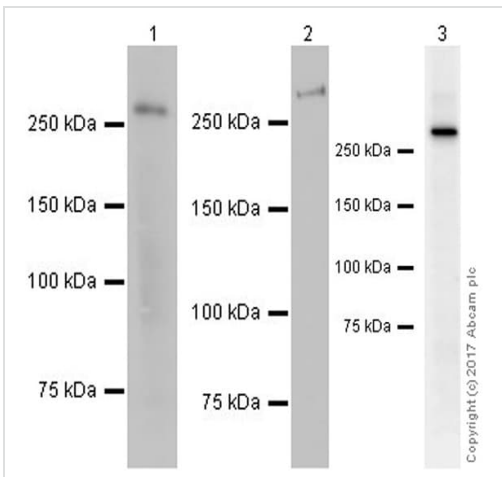


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NG2 antibody [EPR20244] (ab183929)

Immunohistochemical analysis of paraffin-embedded human melanoma tissue labeling NG2 with ab183929 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Membranous and weak cytoplasmic staining on tumor cells of human melanoma (PMID: 24258997). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-NG2 antibody [EPR20244] (ab183929)

All lanes : Anti-NG2 antibody [EPR20244] (ab183929) at 1/1000 dilution

Lane 1 : A-375 (human malignant melanoma cell line), whole cell lysate

Lane 2 : Human skin lysate

Lane 3 : MeWo (human malignant melanoma cell line), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

Lanes 1 & 3 : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Lane 2 : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Developed using the ECL technique.

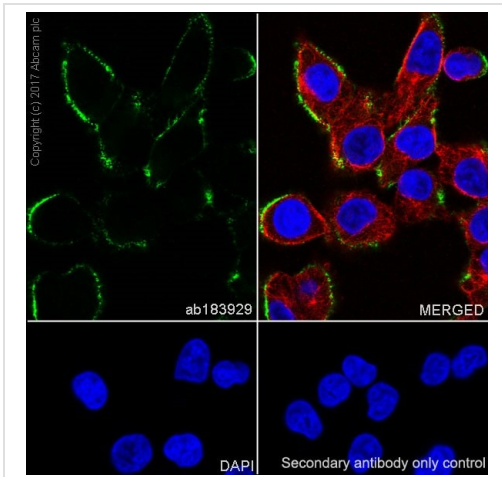
Predicted band size: 251 kDa

Observed band size: 270 kDa

Exposure times: Lanes 1,3: 1 minute; Lane 2: 3 minutes.

Blocking/Dilution buffer: 5% NFD/MTBST.

This image of lane 3 was performed on a BIO-RAD® ChemiDoc™ MP instrument.

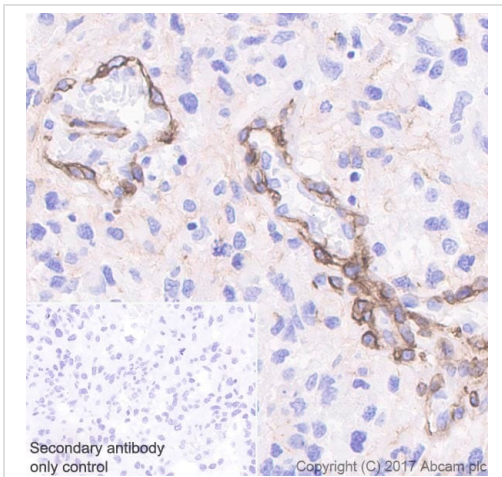


Immunocytochemistry/ Immunofluorescence - Anti-NG2 antibody [EPR20244] (ab183929)

Immunofluorescent analysis of 100% methanol-fixed A-375 (human malignant melanoma cell line) cells labeling NG2 with ab183929 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing membrane staining on A-375 cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) ([ab195889](#)) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.

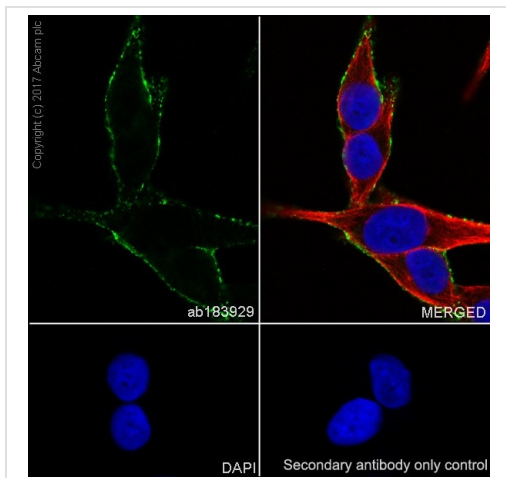


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NG2 antibody [EPR20244] (ab183929)

Immunohistochemical analysis of paraffin-embedded human glioma tissue labeling NG2 with ab183929 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Membranous staining on blood vessels of human glioma (PMID: 24386429). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.







Immunocytochemistry/ Immunofluorescence - Anti-NG2 antibody [EPR20244] (ab183929)

Immunofluorescent analysis of 100% methanol-fixed MeWo (human malignant melanoma cell line) cells labeling NG2 with ab183929 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing membrane staining on MeWo cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) ([ab195889](#)) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-NG2 antibody [EPR20244] (ab183929)

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

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