abcam

ab255811

Anti-NG2 antibody [EPR22410-145]

Anti-NG2 antibody [EPR22410-145] (ab255811) is a rabbit monoclonal antibody detecting NG2 in **Western Blot, Flow Cytometry, IP, IHC-P, ICC/IF**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR22410-145
Purification technique	Affinity purification Protein A
Concentration	0.562 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30

Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/600
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information CSPG4

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. Also functions 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.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-NG2 antibody [EPR22410-145] (ab255811) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of NG2?
Anti-NG2 [EPR22410-145] (ab255811) specifically detects a band for NG2 (UniProt: Q6UVK1) at a molecular weight of 251kDa.

Other related products
We have a range of other formats of antibody clone [EPR22410-145] also available for your convenience: ab255811, Carrier free - ab256351, Alexa Fluor® 647 - ab307380, Alexa Fluor® 488 - ab307396, PE - ab314251

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

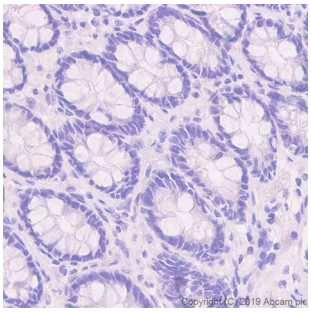
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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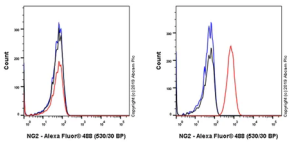
6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NG2 antibody [EPR22410-145] (ab255811)

NG2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NG2 antibody

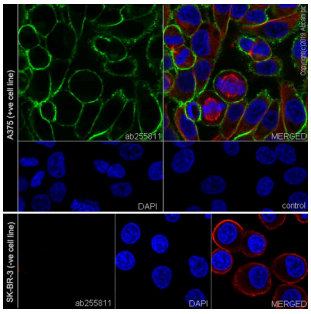
Immunohistochemical analysis of paraffin-embedded human colon tissue labeling NG2 with ab255811 at 1/100 dilution, followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). **Negative control:** No staining in human colon. (PMID: 25197555). The section was incubated with ab255811 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Flow Cytometry - Anti-NG2 antibody [EPR22410-145] (ab255811)

NG2 Flow Cytometry staining using rabbit Anti-NG2 antibody

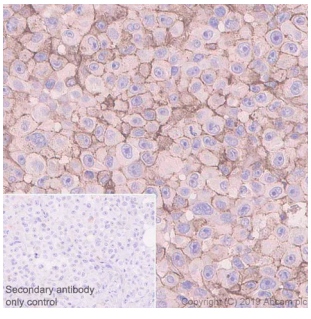
Flow cytometric analysis of SK-BR-3 (Human breast adenocarcinoma epithelial cell, Left panel) / A375 (Human malignant melanoma epithelial cell, Right panel) labeling NG2 with ab255811 at 1/600 (red) compared with a Rabbit monoclonal IgG (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077), at 1/2000 dilution was used as the secondary antibody. **Negative control:** SK-BR-3 (PMID: 20852124). Gated on viable cells.



Immunocytochemistry/ Immunofluorescence - Anti-NG2 antibody [EPR22410-145] (ab255811)

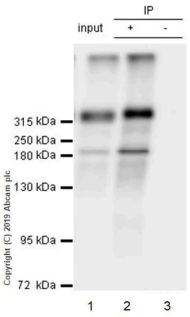
NG2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NG2 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized A375 (human malignant melanoma epithelial cell line) cells labeling NG2 with ab255811 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing membranous staining in A375 cells. **Negative control**: SK-BR-3 (PMID: 20852124). The nuclear counterstain is DAPI (blue). Counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at a 1/200 dilution (red). The negative control is the secondary antibody only.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NG2 antibody [EPR22410-145] (ab255811)

Immunohistochemical analysis of paraffin-embedded human melanoma tissue labeling NG2 with ab255811 at 1/100 dilution, followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining in human melanoma (PMID: 25197555). The section was incubated with ab255811 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Immunoprecipitation - Anti-NG2 antibody [EPR22410-145] (ab255811)

NG2 was immunoprecipitated from 0.35 mg A375 (Human malignant melanoma epithelial cell) whole cell lysate with ab255811 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab255811 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used at 1/1000 dilution.
Lane 1: A375 whole cell lysate 10 µg (Input).
Lane 2: ab255811 IP in A375 whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab255811 in A375 whole cell lysate.

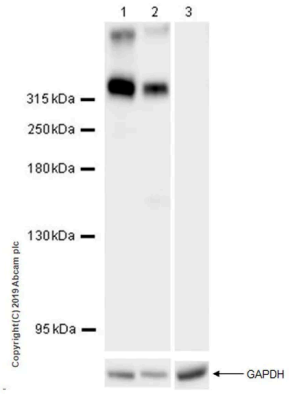
The molecular weight observed is consistent with what has been described in the literature (PMID: 9477982, 8790396). A truncated form is also detected (190kDa, PMID: 25387269).

Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure time: 1 second.

All lanes:
Immunoprecipitation - Anti-NG2 antibody [EPR22410-145] (ab255811)

Predicted band size: 251 kDa

Observed band size: 190 kDa, 330 kDa, 600 kDa



Western blot - Anti-NG2 antibody [EPR22410-145] (ab255811)

NG2 Western blot staining using rabbit Anti-NG2 antibody

The antibody detects NG2 core protein of 330KD and intact proteoglycan of 600KD (PMID: 9477982, 8790396).
Negative control: SK-BR-3 (PMID: 20852124).

Blocking/Dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-NG2 antibody [EPR22410-145] (ab255811) at 1/1000 dilution

Lane 1:
A375 (human malignant melanoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
SK-MEL-28 (human malignant melanoma) whole cell lysate at 20 µg

Lane 3:
SK-BR-3 (human breast adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 251 kDa

Observed band size: 330 kDa, 600 kDa

Exposure time: 15s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.