abcam

ab275041

Anti-NG2 antibody [EPR23752-147] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR23752-147
Purification technique	Affinity purification Protein A
Concentration	0.957 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse, Rat
Dilution info	-

Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab275041 is the carrier-free version of ab259324.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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

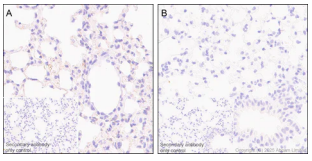
We do not recommend this combination. It is not covered by our product promise.

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.

9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NG2 antibody [EPR23752-147] - BSA and Azide free (ab275041)

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

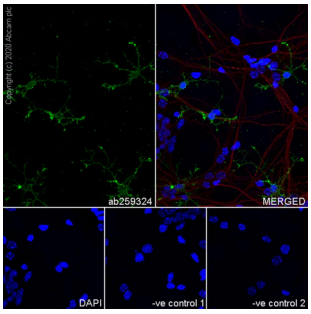
This data was developed using ab259324, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded (A) Lung tissue from wild-type C57BL/6J mice and (B) Lung tissue from Cspg4 knockout mice tissue labeling NG2 with ab259324 at 1/1000 dilution.

Positive staining on (A) Lung tissue from wild-type C57BL/6J mice, no staining on (B) Lung tissue from Cspg4 knockout mice.

The primary antibody was incubated for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and Cspg4-KO homozygous mice (Strain ID: T011797).



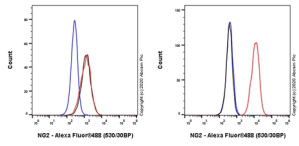
Immunocytochemistry/ Immunofluorescence - Anti-NG2 antibody [EPR23752-147] - BSA and Azide free (ab275041)

NG2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NG2 antibody

This data was developed using ab259324, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized rat primary neural/glia cells labelling NG2 with ab259324 at 1/50 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing positive staining in rat primary glia cells. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. ab11267 Anti-MAP2 mouse monoclonal antibody was used to counterstain MAP2 at 1/500 dilution, followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution (Red). The Nuclear counterstain was DAPI (Blue).

-ve control 1: ab259324 at 1/50 dilution, followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution.

-ve control 2: ab11267 at 1/1000 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution.



Flow Cytometry - Anti-NG2 antibody [EPR23752-147] - BSA and Azide free (ab275041)

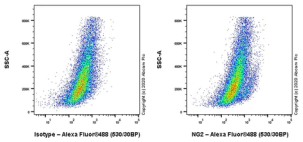
NG2 Flow Cytometry staining using rabbit Anti-NG2 antibody

This data was developed using ab259324, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of N9 (Mouse microglia, Left) / NIH/3T3 (Mouse embryonic fibroblast, Right) cells labelling NG2 with ab259324 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Black) and an unlabelled 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: N9 cells.

Gated on viable cells.



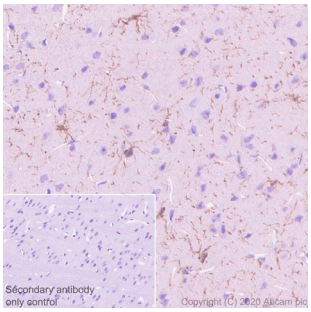
Flow Cytometry - Anti-NG2 antibody [EPR23752-147] - BSA and Azide free (ab275041)

NG2 Flow Cytometry staining using rabbit Anti-NG2 antibody

This data was developed using ab259324, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of Mouse primary neural glia cells cells labelling NG2 with ab259324 at 1/500 dilution (0.1ug) (Right) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Left).

Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

Gated on viable cells.

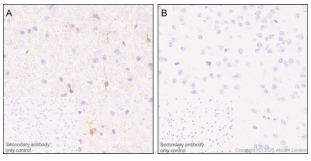


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NG2 antibody [EPR23752-147] - BSA and Azide free (ab275041)

This data was developed using ab259324, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling NG2 with ab259324 at 1/100 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on mouse cerebrum (PMID: 31769737). The section was incubated with ab259324 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a 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 solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NG2 antibody [EPR23752-147] - BSA and Azide free (ab275041)

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

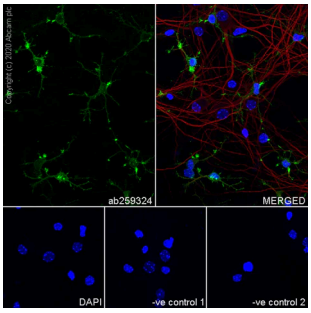
This data was developed using ab259324, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded (A) Cerebrum tissue from wild-type C57BL/6J mice and (B) Cerebrum tissue from Cspg4 knockout mice tissue labeling NG2 with ab259324 at 1/1000 dilution.

Positive staining on (A) Cerebrum tissue from wild-type C57BL/6J mice, no staining on (B) Cerebrum tissue from Cspg4 knockout mice.

The primary antibody was incubated for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and Cspg4-KO homozygous mice (Strain ID: T011797).

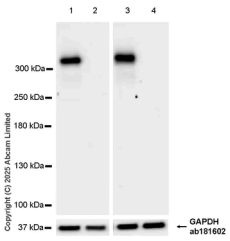


Immunocytochemistry/ Immunofluorescence - Anti-NG2 antibody [EPR23752-147] - BSA and Azide free (ab275041)

NG2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NG2 antibody

This data was developed using ab259324, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized mouse primary neural/glia cells labelling NG2 with ab259324 at 1/100 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing positive staining in mouse primary glia cells. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. ab11267 Anti-MAP2 mouse monoclonal antibody was used to counterstain tubulin at 1/500 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Western blot - Anti-NG2 antibody [EPR23752-147] - BSA and Azide free (ab275041)

NG2 Western blot staining using rabbit Anti-NG2 antibody

This data was developed using ab259324, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and Cspg4-KO homozygous mice (Strain ID: T011797).

All lanes:
Western blot - Anti-NG2 antibody [EPR23752-147] (ab259324) at 1/1000 dilution

Lane 1:
Wild-type mouse lung tissue lysate (male) at 20 µg

Lane 2:
Cspg4 knockout mouse lung tissue lysate (male) at 20 µg

Lane 3:
Wild-type mouse lung tissue lysate (female) at 20 µg

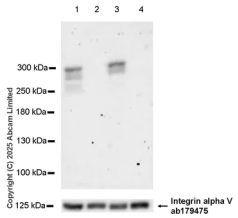
Lane 4:
Cspg4 knockout mouse lung tissue lysate (female) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 300 kDa

Exposure time: 62s



Western blot - Anti-NG2 antibody [EPR23752-147] - BSA and Azide free (ab275041)

NG2 Western blot staining using rabbit Anti-NG2 antibody

This data was developed using ab259324, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and Cspg4-KO homozygous mice (Strain ID: T011797).

All lanes:
Western blot - Anti-NG2 antibody [EPR23752-147] (ab259324) at 1/1000 dilution

Lane 1:
Wild-type mouse cerebrum tissue lysate (male) at 20 µg

Lane 2:
Cspg4 knockout mouse cerebrum tissue lysate (male) at 20 µg

Lane 3:
Wild-type mouse cerebrum tissue lysate (female) at 20 µg

Lane 4:
Cspg4 knockout mouse cerebrum tissue lysate (female) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 300 kDa

Exposure time: 180s

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