abcam

ab249819

Anti-NgR3 antibody [EPR11334] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR11334
Purification technique	Affinity purification Protein A
Concentration	0.966 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information RTN4RL1

Function	Cell surface receptor. Plays a functionally redundant role in postnatal brain development and in regulating axon regeneration in the adult central nervous system. Contributes to normal axon migration across the brain midline and normal formation of the corpus callosum. Protects motoneurons against apoptosis; protection against apoptosis is probably mediated by MAG. Plays a role in inhibiting neurite outgrowth and axon regeneration via its binding to neuronal chondroitin sulfate proteoglycans. Binds heparin (By similarity). Like other family members, plays a role in restricting the number dendritic spines and the number of synapses that are formed during brain development (PubMed:22325200). Signaling mediates activation of Rho and downstream reorganization of the actin cytoskeleton (PubMed:22325200).

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

ab249819 is the carrier-free version of ab174323.

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	NgR3 also known as Nogo-66 Receptor Homolog 3 or Reticulon 4 Receptor-Like 2 is part of the Nogo receptor family. It is a glycolipid-anchored receptor weighing approximately 55 kDa. This protein is mainly found in the central nervous system and is widely expressed in the brain though it also appears in other tissues to a lesser extent. NgR3 contributes to axon growth inhibition and neuronal regeneration influencing nerve repair processes.
Biological function summary	NgR3 influences axonal guidance and inhibition by interacting with other proteins. It forms part of a receptor complex typically incorporating p75 neurotrophin receptor and Lingo-1 which are important for signaling processes. Through these interactions NgR3 helps moderate the effects of myelin-associated inhibitors on axonal outgrowth supporting the regulation of neuronal plasticity and myelin repair mechanisms.
Pathways	This receptor plays a significant role in the regulation of axon regeneration. It intersects with the Nogo-A signaling pathway where it works with closely related proteins such as NgR1 and NgR2. These interactions inhibit axonal growth and impact neuronal development and recovery post-injury. Through this pathway NgR3 aids in balancing axonal regeneration and pathfinding during neural development and repair.
Associated diseases and disorders	NgR3 is associated with conditions that involve axonal damage and neurodegeneration including multiple sclerosis and spinal cord injuries. It impacts these conditions by modulating axonal growth inhibitory mechanisms. In multiple sclerosis NgR3 works with proteins like Nogo-A to influence remyelination processes potentially affecting the disease progression. Understanding the role of NgR3 in these contexts could aid in developing therapeutic strategies aimed at enhancing neural repair and recovery.

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.

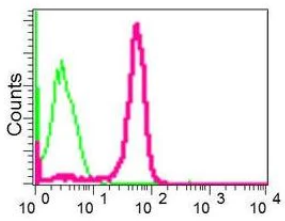
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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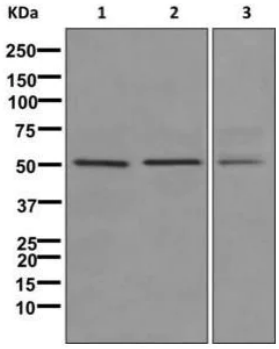
2 product images



Flow Cytometry (Intracellular) - Anti-NgR3 antibody [EPR11334] - BSA and Azide free (ab249819)

NgR3 Flow Cytometry (Intracellular) staining using rabbit Anti-NgR3 antibody

This data was developed using ab174323, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized K562 cells labeling NgR3 with ab174323 at 1/100 dilution (red) compared with a rabbit IgG negative control (green).



Western blot - Anti-NgR3 antibody [EPR11334] - BSA and Azide free (ab249819)

NgR3 Western blot staining using rabbit Anti-NgR3 antibody

This data was developed using ab174323, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NgR3 antibody [EPR11334] (ab174323) at 1/1000 dilution

Lane 1:
SH-SY5Y cell lysate at 10 µg

Lane 2:
K562 cell lysate at 10 µg

Lane 3:
MCF-7 cell lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 49 kDa

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