abcam

ab109256

Anti-NRG3 antibody [EPR4148]

Recombinant | RabMAb

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	EPR4148
Purification technique	Affinity purification Protein A
Concentration	0.104 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	-

Species	Rat
Dilution info	1/1000 - 1/10000
Notes	-

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Rat
Dilution info	1/10 - 1/100

Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information NRG3

Function	Direct ligand for the ERBB4 tyrosine kinase receptor. Binding results in ligand-stimulated tyrosine phosphorylation and activation of the receptor. Does not bind to the EGF receptor, ERBB2 or ERBB3 receptors. May be a survival factor for oligodendrocytes.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

Notes

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.

Supplementary info

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

Activity summary	NRG3 also known as Neuregulin-3 is a protein with a molecular mass around 71 kDa. It is a member of the neuregulin family which includes proteins that play roles in cell communication and development. NRG3 is expressed in the central nervous system with notable expression in brain regions like the cerebral cortex and hippocampus. It acts mechanically as a signaling molecule binding to ErbB4 a receptor tyrosine kinase to initiate downstream signaling cascades.
Biological function summary	NRG3 influences neural development and synaptic plasticity contributing to the formation and maturation of neuronal circuits. It is part of the epidermal growth factor (EGF)-like family which is involved in cell-to-cell communication necessary for various aspects of development. This protein interacts with ErbB4 to form a receptor-ligand complex essential for signal transduction. These interactions play important roles in brain development and maintenance of normal neural functions.
Pathways	NRG3 plays a role in pathways like the ErbB signaling and the PI3K/AKT pathways. It engages in interactions majorly with ErbB4 facilitating neuronal signaling processes essential for brain function. In the PI3K/AKT pathway NRG3-ErbB4 interaction supports cell survival and growth linking it with other signaling proteins such as PI3K and AKT. This positions NRG3 as an important player in maintaining cellular responses and neuronal homeostasis.
Associated diseases and disorders	NRG3 has connections with schizophrenia and autism spectrum disorders. Alterations in NRG3 signaling have been associated with the pathophysiology of schizophrenia where abnormal ErbB4-NRG3 interactions contribute to neural development issues leading to the disease. Changes in the signaling pathway involving NRG3 and ErbB4 also relate to autism spectrum disorders indicating its role in neural developmental disorders. Understanding NRG3's function and interactions could provide insights into therapeutic targets for these conditions.

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.

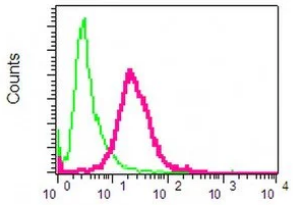
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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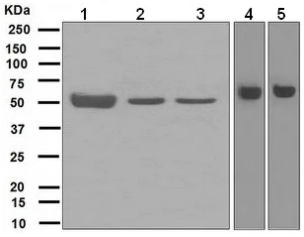
2 product images



Flow Cytometry (Intracellular) - Anti-NRG3 antibody [EPR4148] (ab109256)

NRG3 Flow Cytometry (Intracellular) staining using rabbit Anti-NRG3 antibody

Intracellular flow cytometric analysis of permeabilized C6 (Rat glial tumor cell line) cells using ab109256 (red) or a rabbit IgG (negative) (green).



Western blot - Anti-NRG3 antibody [EPR4148] (ab109256)

All lanes:
Western blot - Anti-NRG3 antibody [EPR4148] (ab109256) at 1/1000 dilution

Lane 1:
Fetal brain lysate at 10 µg

Lane 2:
SH-SY5Y lysate at 10 µg

Lane 3:
C6 lysate at 10 µg

Lane 4:
Mouse brain lysate at 10 µg

Lane 5:
Rat brain lysate at 10 µg

Predicted band size: 77 kDa

Observed band size: 56 kDa

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