abcam

ab232014

Anti-NRG3 antibody [EPR4148] - 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	EPR4148
Purification technique	Affinity purification Protein A

Reactivity data

WB

Expected

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

Flow Cyt (Intra)

Tested

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

Predicted

Species	Mouse, Human
Dilution info	-
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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab232014 is the carrier-free version of ab109256.

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	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

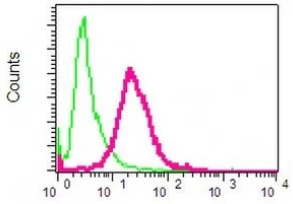
We do not recommend this combination. It is not covered by our product promise.

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.

1 product image



Flow Cytometry (Intracellular) - Anti-NRG3 antibody [EPR4148] - BSA and Azide free (ab232014)

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).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab109256).

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