abcam

ab177949

Anti-RAB3B antibody [EPR12987]

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	EPR12987
Purification technique	Affinity purification Protein A
Concentration	0.165 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	1/1000 - 1/10000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Ras-related protein Rab-3B

Function	The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes (PubMed:35871249). Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion (PubMed:35871249).

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

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	RAB3B is a small GTPase belonging to the RAB protein family known for its role in regulating vesicle trafficking. It is also referred to as Ras-related protein Rab-3B. The molecular mass of RAB3B is approximately 25 kDa. This protein is primarily expressed in the brain although it shows presence in other tissues as well. RAB3B functions by cycling between an active GTP-bound state and an inactive GDP-bound state facilitating the control of intracellular vesicle movement and positioning.
Biological function summary	RAB3B participates in synaptic vesicle exocytosis an important process in neurotransmitter release at synapses. It is part of the exocytotic machinery complex that coordinates vesicle docking and fusion with target membranes. This protein plays a significant role in ensuring effective neurotransmission which is important for neuronal communication. Given its role in synaptic function RAB3B contributes to the regulation of synaptic plasticity and memory formation.
Pathways	RAB3B is actively involved in the regulation of the synaptic vesicle cycle and exocytosis pathways. These pathways are important in neurotransmitter release and recycling in neurons. In the synaptic vesicle cycle RAB3B interacts with proteins like RAB3A and Munc-18 which play roles in vesicle docking and fusion. These interactions ensure the coordination and timing of neurotransmitter release which is essential for accurate neuronal signaling.
Associated diseases and disorders	Mutations or dysregulation of RAB3B have been implicated in neurological conditions such as epilepsy and Alzheimer's disease. In epilepsy the disruption of normal synaptic vesicle trafficking can lead to abnormal neuronal excitability. Similarly in Alzheimer's disease altered vesicle transport associated with RAB3B may contribute to synaptic dysfunction and cognitive decline. RAB3B's interaction with other synaptic proteins becomes a critical factor in understanding its involvement in these disorders.

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.

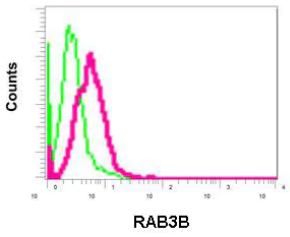
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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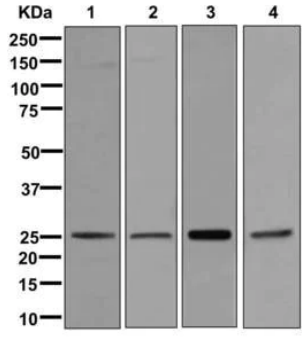
2 product images



Flow Cytometry (Intracellular) - Anti-RAB3B antibody [EPR12987] (ab177949)

RAB3B Flow Cytometry (Intracellular) staining using rabbit Anti-RAB3B antibody

Intracellular flow cytometric analysis of permeabilized SW480 cellslabeling RAB3B with ab177949at 1/10 dilution (red) compared to a rabbit IgG negative control (green).



Western blot - Anti-RAB3B antibody [EPR12987] (ab177949)

All lanes:
Western blot - Anti-RAB3B antibody [EPR12987] (ab177949) at 1/1000 dilution

Lane 1:
293T lysate at 10 µg

Lane 2:
HepG2 lysate at 10 µg

Lane 3:
Fetal brain lysate at 10 µg

Lane 4:
SW480 lysate at 10 µg

Predicted band size: 25 kDa

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