abcam

ab249316

Anti-AZIN2 antibody [EPR7124(2)] - 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	EPR7124(2)
Purification technique	Affinity purification
Concentration	1.022 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

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	-

ICC/IF

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 AZIN2

Function	Antizyme inhibitor (AZI) protein that positively regulates ornithine decarboxylase (ODC) activity and polyamine uptake. AZI is an enzymatically inactive ODC homolog that counteracts the negative effect of ODC antizymes (AZs) OAZ1, OAZ2 and OAZ3 on ODC activity by competing with ODC for antizyme-binding (PubMed:17900240). Inhibits antizyme-dependent ODC degradation and releases ODC monomers from their inactive complex with antizymes, leading to formation of the catalytically active ODC homodimer and restoring polyamine production (PubMed:17900240). Participates in the morphological integrity of the trans-Golgi network (TGN) and functions as a regulator of intracellular secretory vesicle trafficking (PubMed:20188728).

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

ab249316 is the carrier-free version of ab157214.

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	The biological target AZIN2 also known as Antizyme Inhibitor 2 is a protein that modulates polyamine levels within cells by inhibiting antizyme activity. It weighs approximately 47 kDa. AZIN2 expresses in various tissues including the brain and adrenal glands where its role is closely associated with polyamine biosynthesis. The protein interacts with antizymes to regulate their function which in turn controls the degradation of ornithine decarboxylase and the uptake of polyamines.
Biological function summary	AZIN2 functions as a modulator of the polyamine pathway preventing protein degradation and facilitating cellular growth and proliferation. It is part of a regulatory complex that includes antizymes and affects the homeostasis of polyamines. This complex interplay significantly impacts the cellular environment and plays a role in maintaining cellular function influencing processes such as signal transduction and ion transport.
Pathways	AZIN2's manipulation of the polyamine pathway reveals its role in cellular growth regulation. It participates in the pathway alongside the arginine and proline metabolism influencing the balance of polyamines within cells. AZIN2 shares a relationship with ornithine decarboxylase and antizymes stabilizing polyamine levels critical for DNA stabilization and protein synthesis.
Associated diseases and disorders	Dysregulation of AZIN2 can relate to cancer and metabolic syndrome. In cancer disrupted polyamine regulation can lead to uncontrolled cell proliferation; AZIN2 affects this through its interaction with antizymes and ornithine decarboxylase. In metabolic syndrome altered polyamine levels associate with energy homeostasis and can implicate AZIN2’s function in disease progression. Understanding these connections provides potential therapeutic avenues for managing such 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.

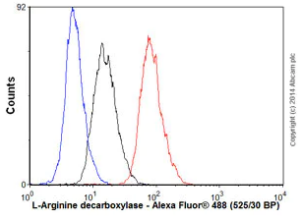
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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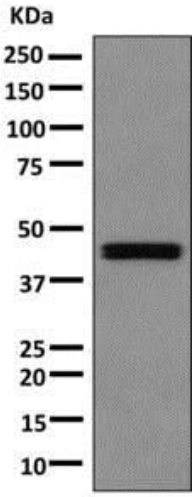
2 product images



Flow Cytometry (Intracellular) - Anti-AZIN2 antibody [EPR7124(2)] - BSA and Azide free (ab249316)

AZIN2 Flow Cytometry (Intracellular) staining using rabbit Anti-AZIN2 antibody

This data was developed using ab157214, the same antibody clone in a different buffer formulation.
Overlay histogram showing SH-SY5Y cells stained with ab157214 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab157214, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in SH-SY5Y cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-AZIN2 antibody [EPR7124(2)] - BSA and Azide free (ab249316)

AZIN2 Western blot staining of Human cerebellum lysate using rabbit Anti-AZIN2 antibody

This data was developed using ab157214, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-AZIN2 antibody [EPR7124(2)] (ab157214) at 1/1000 dilution

All lanes:
Human cerebellum lysate at 10 µg

Predicted band size: 50 kDa

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