abcam

ab248750

Anti-ACBD3 antibody [EPR8623] - BSA and Azide free

Recombinant | RabMAb | KO Validated

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	EPR8623
Purification technique	Affinity purification
Dissociation constant	2.28 x 10^{-10} M
Concentration	1.063 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human

Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information ACBD3

Function Involved in the maintenance of Golgi structure by interacting with giantin, affecting protein transport between the endoplasmic reticulum and Golgi (PubMed:11590181). Involved in hormone-induced steroid biosynthesis in testicular Leydig cells (By similarity). Recruits PI4KB to the Golgi apparatus membrane; enhances the enzyme activity of PI4KB activity via its membrane recruitment thereby increasing the local concentration of the substrate in the vicinity of the kinase (PubMed:27009356). (Microbial infection) Plays an essential role in Aichi virus RNA replication by recruiting PI4KB at the viral replication sites.

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

ab248750 is the carrier-free version of ab134952.

Species reactivity

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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	ACBD3 also known by its alternate name GCP60 is a protein weighing approximately 60 kDa. This protein expresses in multiple tissues with significant presence in the Golgi apparatus where it plays a major role in maintaining Golgi structure and trafficking. ACBD3 helps anchor various proteins to the Golgi membranes facilitating essential cellular processes. It operates as a scaffold protein interacting with other proteins to regulate cellular localization and transport activities efficiently.
Biological function summary	ACBD3 plays a critical part in various cellular functions beyond just Golgi apparatus maintenance. It closely associates with other proteins to form part of larger functional networks such as the polypeptide N-acetylgalactosaminyltransferase enzyme complex. Through these interactions ACBD3 influences processes like lipid metabolism protein glycosylation and sterol biosynthesis. Its action is tied to the coordination of intracellular signaling and organization making it an important player in diverse cellular mechanisms.
Pathways	ACBD3 contributes significantly to the Golgi-ER transport pathway. This pathway is essential for protein sorting and trafficking impacting how proteins are directed and modified. ACBD3 interacts with proteins like PI4KB and GOLGA7 important for phosphoinositide signaling which regulates membrane trafficking and signaling at the Golgi. These pathways connect to broader cellular networks and ensure proper function and organization within the cell.
Associated diseases and disorders	ACBD3 has links with several conditions highlighting its functional significance. Altered ACBD3 activity associates with neurodegenerative diseases and cancers. It interacts with proteins such as Coxsackievirus and Adenovirus Receptor (CAR) in viral infections illustrating its role in disease mechanisms. These interactions highlight the potential of ACBD3 as a target for therapeutic intervention or a biomarker in disease diagnosis and progression.

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

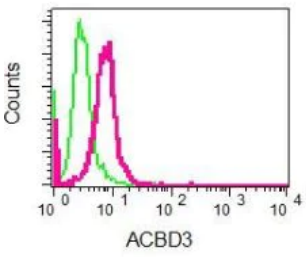
We do not recommend this combination. It is not covered by our product promise.

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.

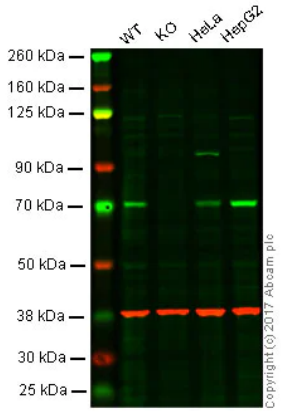
4 product images



Flow Cytometry (Intracellular) - Anti-ACBD3 antibody [EPR8623] - BSA and Azide free (ab248750)

ACBD3 Flow Cytometry (Intracellular) staining using rabbit Anti-ACBD3 antibody

This data was developed using ab134952, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized K562 cells labelling ACBD3 using ab134952 (red) at 1/100 dilution and rabbit IgG negative control (green).



Western blot - Anti-ACBD3 antibody [EPR8623] - BSA and Azide free (ab248750)

ACBD3 Western blot staining using rabbit Anti-ACBD3 antibody

This data was developed using ab134952, the same antibody clone in a different buffer formulation.
Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

Lane 2: ACBD3 knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

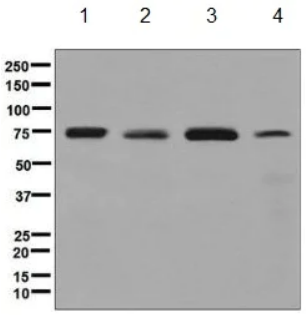
Lane 4: HepG2 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab134952 observed at 70 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab134952 was shown to specifically react with ACBD3 when ACBD3 knockout samples were used. Wild-type and ACBD3 knockout samples were subjected to SDS-PAGE. ab134952 and ab8245 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-ACBD3 antibody [EPR8623] (ab134952)

Predicted band size: 61 kDa



Western blot - Anti-ACBD3 antibody [EPR8623] - BSA and Azide free (ab248750)

This data was developed using ab134952, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-ACBD3 antibody [EPR8623] (ab134952) at 1/1000 dilution

Lane 1:
K562 cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

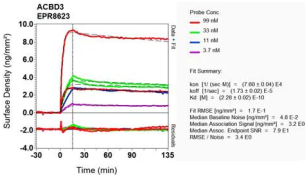
Lane 3:
293T (Human embryonic kidney epithelial cell) cell lysate at 10 µg

Lane 4:
LNCaP cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti rabbit at 1/2000 dilution

Predicted band size: 61 kDa



OI-RD Scanning - Anti-ACBD3 antibody [EPR8623] - BSA and Azide free (ab248750)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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