abcam

ab181849

Anti-GOLPH4/GPP130 antibody [EPR13445]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	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	EPR13445
Purity	Tissue culture supernatant

Reactivity data

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/90
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information GOLIM4

Function	Plays a role in endosome to Golgi protein trafficking; mediates protein transport along the late endosome-bypass pathway from the early endosome to the Golgi.

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	GOLPH4 also known as GPP130 and Golgi integral membrane protein 4 is a protein with a mass of approximately 130 kDa. It plays an important role in the organization and maintenance of the Golgi apparatus structure. GOLPH4 is predominantly found in the cis-Golgi network and it is involved in the cellular sorting and trafficking of proteins and lipids. The protein functions as a tethering factor and it may participate in the transport of cargo from the Golgi to other cellular locations.
Biological function summary	The role of GOLPH4 centers around its involvement in the protein trafficking process within cells. It acts as part of the complex tasked with maintaining Golgi organization which is important for facilitating accurate cargo sorting and delivery. GOLPH4's location and structure enable it to interact with motor proteins and other Golgi matrix proteins aiding in vesicle tethering and fusion processes.
Pathways	GOLPH4 is involved in essential cellular pathways such as the secretion and endocytic trafficking pathways. It interacts with other Golgi-resident proteins like GM130 and giantin which are essential for the movement of materials through the Golgi and to their final destinations. These pathways ensure that proteins and lipids reach their intended areas within the cell or are secreted to the extracellular space which is important for maintaining cellular function and homeostasis.
Associated diseases and disorders	Disturbances in GOLPH4 function have been associated with conditions such as cancer and neurodegenerative diseases. Aberrant expression or mutations in this protein can lead to misregulation of Golgi functions affecting overall cellular trafficking systems. GOLPH4's interaction with proteins involved in these conditions such as p53 in cancer or tau in neurodegenerative diseases highlights its potential as a target for therapeutic interventions.

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

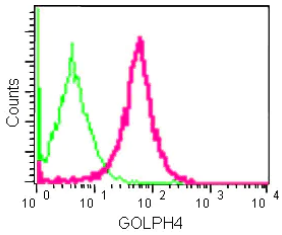
We do not recommend this combination. It is not covered by our product promise.

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.

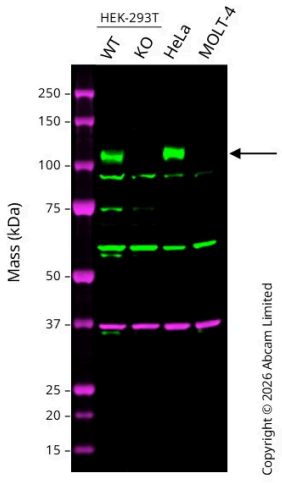
3 product images



Flow Cytometry (Intracellular) - Anti-GOLPH4/GPP130 antibody [EPR13445] (ab181849)

GOLPH4/GPP130 Flow Cytometry (Intracellular) staining using rabbit Anti-GOLPH4/GPP130 antibody

Intracellular flow cytometric analysis of HeLa cells (paraformaldehyde-fixed, 2%) labeling GOLPH4/GPP130 with ab181849 at 1/90 dilution (red) or a rabbit IgG (negative) (green), followed by secondary Goat anti rabbit IgG (FITC) at 1/150 dilution.



Western blot - Anti-GOLPH4/GPP130 antibody [EPR13445] (ab181849)

GOLPH4/GPP130 Western blot staining using rabbit Anti-GOLPH4/GPP130 antibody

Western blot: Anti-GOLPH4/GPP130 antibody [EPR13445] ab181849 staining at 1/20000 dilution, shown in green; Mouse anti GAPDH ab8245 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 110 kDa in Wild-type HEK-293T cell lysates with no signal observed at this size in GOLIM4 knockout HEK-293T cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5% Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-GOLPH4/GPP130 antibody [EPR13445] (ab181849) at 1/20000 dilution

Lane 1:
Wild-type HEK-293T cell lysates at 20 µg

Lane 2:
Western blot - Human GOLIM4 (GOLPH4/GPP130) knockout HEK-293T cell line (ab266123) at 20 µg

Lane 3:
HeLa cell lysates at 20 µg

Lane 4:
MOLT-4 cell lysates at 20 µg

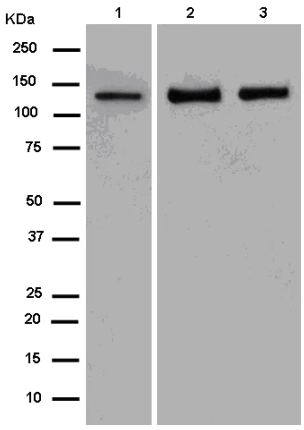
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 82 kDa

Observed band size: 110 kDa



Western blot - Anti-GOLPH4/GPP130 antibody [EPR13445] (ab181849)

GOLPH4/GPP130 Western blot staining using rabbit Anti-GOLPH4/GPP130 antibody

All lanes:
Western blot - Anti-GOLPH4/GPP130 antibody [EPR13445] (ab181849) at 1/20000 dilution

Lane 1:
Y79 cell lysate at 20 µg

Lane 2:
HeLa cell lysate at 20 µg

Lane 3:
HepG2 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L) HRP at 1/1000 dilution

Predicted band size: 82 kDa

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