abcam

ab308521

Anti-Golgin 97 antibody [EPR27333-18] - 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	EPR27333-18
Purification technique	Affinity purification Protein A
Concentration	0.914 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

ICC/IF

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Expected

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

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information GOLGA1

Function Involved in vesicular trafficking at the Golgi apparatus level. Involved in endosome-to-Golgi trafficking. Mechanistically, captures transport vesicles arriving from endosomes via the protein TBC1D23 (PubMed:29084197, PubMed:38552021). Recognized vesicles are then tethered to the trans-Golgi before subsequent SNARE engagement and vesicle fusion. Selectively regulates E-cadherin transport from the trans-Golgi network in tubulovesicular carriers (PubMed:34969853). (Microbial infection) Plays an important role in poxvirus morphogenesis. Translocates into the viral factories where it may transport the membrane fragments and associated protein factors important for virus maturation to the sites of virion assembly.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

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.

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	Golgin-97 also known as Golgin subfamily A member 1 is a protein that plays a significant role in the Golgi apparatus function. This protein has a molecular mass of approximately 97 kDa. Golgin-97 is widely expressed in the Golgi apparatus of eukaryotic cells. Its structure facilitates its function as a membrane-bound protein influencing the organization of the Golgi stack and maintenance of the Golgi ribbon.
Biological function summary	Golgin-97 participates in tethering of transport vesicles to the Golgi membrane ensuring efficient trafficking of proteins to their correct destinations. It is part of the golgin family which includes several coiled-coil proteins critical for Golgi structure and dynamics. Golgin-97 acts within a larger protein complex that interacts with other Golgi-associated proteins to regulate vesicle docking and fusion.
Pathways	Protein and lipid trafficking involve Golgin-97 significantly as it aids in vesicular transport coordination from the endoplasmic reticulum to the Golgi and within the Golgi stacks. The protein interacts closely with Rab GTPases a class of proteins that regulate vesicle movement. Golgin-97's function intertwines with pathways like the secretory pathway and the endocytic pathway linking it to other proteins such as Rab6 and Rab9.

Associated diseases and disorders	Golgin-97 has associations with pathologies involving Golgi dysfunction and transport defects. For instance it relates to diseases like neurodegenerative disorders where proper protein trafficking is disrupted. The malfunction of Golgin-97 can affect proteins like Alzheimer's disease proteins as vesicular transport failure can lead to their mislocalization or aggregation contributing to disease 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

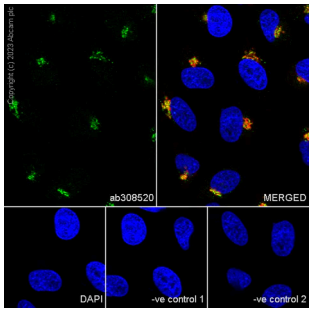
We do not recommend this combination. It is not covered by our product promise.

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.

9 product images

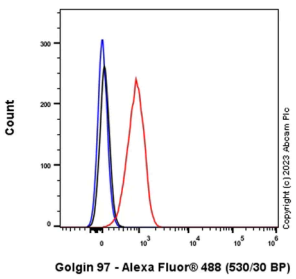


Immunocytochemistry/ Immunofluorescence - Anti-Golgin 97 antibody [EPR27333-18] - BSA and Azide free (ab308521)

Golgin 97 Immunocytochemistry/ Immunofluorescence staining of HeLa cell line using rabbit Anti-Golgin 97 antibody

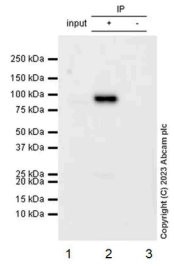
This data was developed using ab308520, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cells labelling Golgin 97 with ab308520 at 1/250 (1.828 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2ug/mL dilution (Green). Confocal image showing the staining co-located with Golgi marker in HeLa cell line. Image was taken with a confocal microscope (Leica-

Microsystems, TCS SP8). ab169276 Anti-GM130 mouse polyclonal antibody - cis-Golgi Marker was used to counterstain tubulin at 1/200 5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2ug/mL dilution.



Flow Cytometry (Intracellular) - Anti-Golgin 97 antibody [EPR27333-18] - BSA and Azide free (ab308521)

This data was developed using ab308520, the same antibody clone in a different buffer formulation. Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling Golgin 97 with ab308520 at 1/500 dilution (0.1 ug)/Red (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Golgin 97 antibody [EPR27333-18] - BSA and Azide free (ab308521)

This data was developed using ab308520, the same antibody clone in a different buffer formulation.
Golgin 97 was immunoprecipitated from 0.35 mg HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate with ab308520 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab308520 at 1/1000 dilution. VeriBlot for IP secondary antibody (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 2: ab308520 IP in HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab308520 in HeLa whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 24 seconds

All lanes:
Immunoprecipitation - Anti-Golgin 97 antibody [EPR27333-18] (ab308520) at 1/1000 dilution

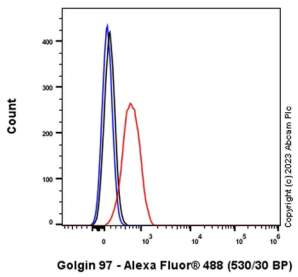
All lanes:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 10 µg

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

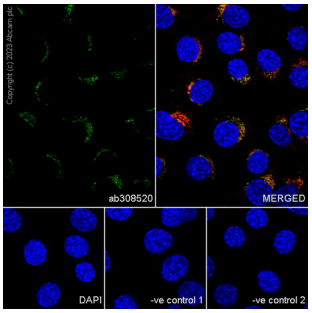
Observed band size: 97 kDa

Exposure time: 24s



Flow Cytometry (Intracellular) - Anti-Golgin 97 antibody [EPR27333-18] - BSA and Azide free (ab308521)

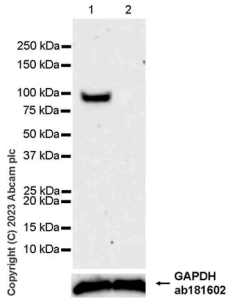
This data was developed using ab308520, the same antibody clone in a different buffer formulation. Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized C2C12 (mouse myoblast) cells labelling Golgin 97 with ab308520 at 1/500 dilution (0.1 ug)/Red (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-Golgin 97 antibody [EPR27333-18] - BSA and Azide free (ab308521)

Golgin 97 Immunocytochemistry/ Immunofluorescence staining of C2C12 cell line using rabbit Anti-Golgin 97 antibody

This data was developed using ab308520, the same antibody clone in a different buffer formulation. Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized C2C12 (mouse myoblasts myoblast) cells labelling Golgin 97 with ab308520 at 1/250 (1.828 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2ug/mL dilution (Green). Confocal image showing the staining co-located with Golgi marker in C2C12 cell line. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). ab169276 Anti-GM130 mouse polyclonal antibody - cis-Golgi Marker was used to counterstain tubulin at 1/200 5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2ug/mL dilution.



Western blot - Anti-Golgin 97 antibody [EPR27333-18] - BSA and Azide free (ab308521)

This data was developed using 308520, the same antibody clone in a different buffer formulation. Blocking and diluting buffer and concentration: 5% NFDM/TBST. In Western blot, anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution. Exposure time: 180 seconds
All lanes:
Western blot - Anti-Golgin 97 antibody [EPR27333-18] (ab308520) at 1/1000 dilution

Lane 1:
Hela (human cervical adenocarcinoma epithelial cell) transfected with scrambled siRNA control whole cell lysate, at 20 µg

Lane 2:
Hela transfected with siRNA specifically targeti Golgin 97 whole cell lysate, at 20 µg

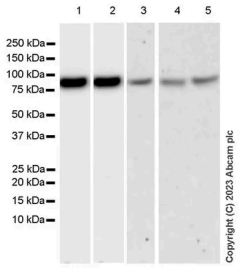
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 88 kDa

Observed band size: 97 kDa

Exposure time: 180s



Western blot - Anti-Golgin 97 antibody [EPR27333-18] - BSA and Azide free (ab308521)

Golgin 97 Western blot staining using rabbit Anti-Golgin 97 antibody

This data was developed using 308520, the same antibody clone in a different buffer formulation. Blocking and diluting buffer and concentration: 5% NFDM/TBST Exposure time: Lane 1 and 2: 37seconds, Lane 3-5: 180 seconds.
All lanes:
Western blot - Anti-Golgin 97 antibody [EPR27333-18] (ab308520) at 1/1000 dilution

Lane 1:
HepG2 (human hepatocellar carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
SW480 (human colorectal adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
C2C12 (mouse myoblast) whole cell lysate at 20 µg

Lane 4:
C6 (rat glial tumor glial cell)whole cell lysate at 20 µg

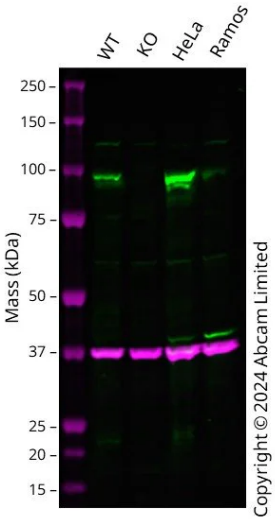
Lane 5:
PC-12 (rat adrenal gland pheochromocytoma) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 88 kDa

Observed band size: 97 kDa



Western blot - Anti-Golgin 97 antibody [EPR27333-18] - BSA and Azide free (ab308521)

Golgin 97 Western blot staining using rabbit Anti-Golgin 97 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab308520).

Western blot: Anti-GOLGA1 antibody [EPR27333-18] (ab308520) staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (ab8245) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab308520 was shown to bind specifically to GOLGA1. A band was observed at 99 kDa in wild-type HCT 116 cell lysates with no signal observed at this size in GOLGA1 knockout cell line. To generate this image, wild-type and GOLGA1 knockout HCT 116 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % 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 IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.

All lanes:
Western blot - Anti-Golgin 97 antibody [EPR27333-18] (ab308520) at 1/1000 dilution

Lane 1:

Wild-type HCT 116 cell lysate at 20 µg

Lane 2:
Western blot - Human GOLGA1 Knockout HCT116 cell line (ab324223) at 20 µg

Lane 3:
HeLa cell lysate at 20 µg

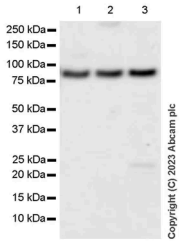
Lane 4:
Ramos cell lysate at 20 µg

Secondary

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

Performed under reducing conditions.

Observed band size: 99 kDa



Western blot - Anti-Golgin 97 antibody [EPR27333-18] - BSA and Azide free (ab308521)

This data was developed using 308520, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST Exposure time: 92 seconds
All lanes:
Western blot - Anti-Golgin 97 antibody [EPR27333-18] (ab308520) at 1/1000 dilution

Lane 1:
Mouse testis tissue lysate at 20 µg

Lane 2:
Rat testis tissue lysate at 20 µg

Lane 3:
Human kidney tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 88 kDa

Observed band size: 97 kDa

Exposure time: 92s

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