abcam

ab317612

Anti-Giantin antibody [EPR27334-4] - Golgi Marker

Recombinant | RabMAb | KO Validated | 20ul selling size

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	EPR27334-4
Purification technique	Affinity purification Protein A
Concentration	0.497 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information GOLGB1

Function	May participate in forming intercisternal cross-bridges of the Golgi complex.

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	Giantin also known as Giantin Golgi or Giantin protein is a large coiled-coil protein with a molecular mass of approximately 376 kDa. It localizes primarily to the cis/medial region of the Golgi apparatus serving as a Golgi marker. As a part of the structural framework of the Golgi it plays an important role in maintaining the integrity and architecture of the Golgi stacks. Giantin is highly expressed in a variety of cell types including those in the liver kidney and brain making it an important target in cell biology studies.
Biological function summary	The Giantin protein functions as a scaffold that supports the Golgi apparatus's dynamic organization. It is part of a larger complex that influences vesicular trafficking within the cell. This ability to interact with various vesicle coat proteins points to its important role in the sorting and transport of proteins and lipids through the secretory pathway. Besides Giantin is involved in the assembly of the Golgi matrix and influences its disassembly during mitosis suggesting a significant involvement in cell proliferation and division.
Pathways	Giantin helps regulate intracellular transport pathways connecting the endoplasmic reticulum (ER) and Golgi as well as intra-Golgi trafficking. It interfaces with other significant proteins such as GM130 and GRASP65 which are involved in Golgi dynamics and structure. This protein also participates in the coordination of the secretory pathway important for the modification and sorting of proteins destined for the cell surface or lysosomes.
Associated diseases and disorders	Giantin has been linked to conditions involving impaired protein glycosylation and Golgi-related transport defects. Notably defects in Giantin function are associated with connective tissue disorders and certain forms of Golgi dysfunctions like Congenital Disorders of Glycosylation (CDG). Additionally Giantin's interactions with proteins such as Sec23/24 and Bet3 which are cargo-binding components of the COPII vesicle coat connect its functional disruption to diseases characterized by impaired vesicular trafficking and cellular secretion malfunctions.

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

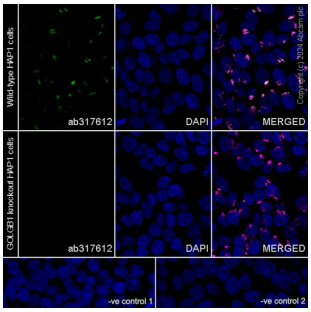
We do not recommend this combination. It is not covered by our product promise.

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



Immunocytochemistry/ Immunofluorescence - Anti-Giantin antibody [EPR27334-4] - Golgi Marker (ab317612)

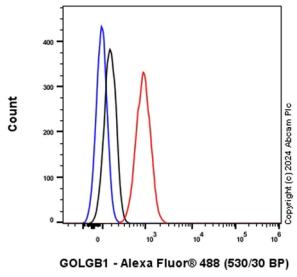
Giantin Immunocytochemistry/ Immunofluorescence staining of GOLGB1 KO HAP1(human chronic myelogenous leukemia near-haploid cell) using rabbit Anti-Giantin antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized GOLGB1 KO HAP1(human chronic myelogenous leukemia near-haploid cell) cells labelling Giantin with ab317612 at 1/100 (4.97 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/mL dilution (Green).

Confocal image showing golgi staining in parental HAP1 cells (shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue). 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 (Magenta). 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 2 ug/mL dilution.

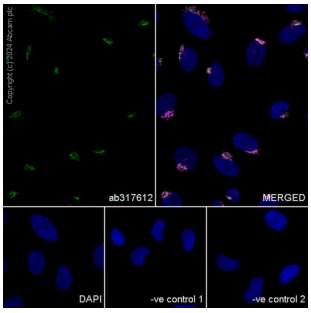


Flow Cytometry (Intracellular) - Anti-Giantin antibody [EPR27334-4] - Golgi Marker (ab317612)

Giantin Flow Cytometry (Intracellular) staining of HeLa (human cervical adenocarcinoma epithelial cell) using rabbit Anti-Giantin antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling Giantin with ab317612 at 1/50 dilution (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).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-Giantin antibody [EPR27334-4] - Golgi Marker (ab317612)

Giantin Immunocytochemistry/ Immunofluorescence staining of HeLa (human cervical adenocarcinoma epithelial cell) using rabbit Anti-Giantin antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling Giantin with ab317612 at 1/100 (4.97 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/mL dilution (Green).

Confocal image showing golgi staining in HeLa cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue). 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 (Magenta). 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 2 ug/mL dilution.

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