

**GOLPH1 Antibody**  
Catalog # ASC10995**Specification****GOLPH1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q9H3P7</a>
Other Accession	<a href="#">EAW69775</a> , <a href="#">119590181</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	GOLPH1 antibody can be used for detection of GOLPH1 by Western blot at 1 - 2 µg/mL.

**GOLPH1 Antibody - Additional Information**

Gene ID	64746
Target/Specificity	
ACBD3;	

**Reconstitution & Storage**

GOLPH1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

GOLPH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**GOLPH1 Antibody - Protein Information**

**Name** ACBD3

**Synonyms** GCP60, GOCAP1, GOLPH1

**Function**

Involved in the maintenance of Golgi structure by interacting with giantin, affecting protein transport between the endoplasmic reticulum and Golgi (PubMed:<a href="http://www.uniprot.org/citations/11590181" target="\_blank">11590181</a>). 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:<a href="http://www.uniprot.org/citations/27009356" target="\_blank">27009356</a>).

**Cellular Location**

Golgi apparatus membrane; Peripheral membrane protein; Cytoplasmic side. Mitochondrion. Note=Also mitochondrial (via its interaction with PBR).

### Tissue Location

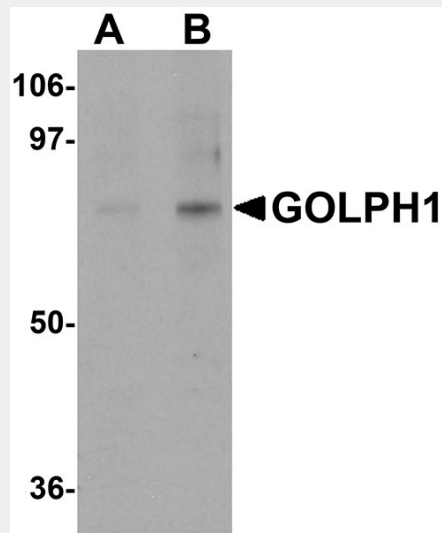
Ubiquitous, with highest expression in testis and ovary.

### GOLPH1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### GOLPH1 Antibody - Images



Western blot analysis of GOLPH1 in K562 cell lysate with GOLPH1 antibody at (A) 1 and (B) 2  $\mu\text{g}/\text{mL}$ .

### GOLPH1 Antibody - Background

**GOLPH1 Antibody:** GOLPH1, also known as GCP60, was initially identified as a Golgi protein that can interact with the integral membrane protein giantin and is thought to be involved in the maintenance of the Golgi structure. GOLPH1 has also been shown to interact with other Golgi proteins such as Golgin-160, a Golgi protein that can be cleaved by caspases-2, -3, and -7, leading to the nuclear localization of Golgin-160. GOLPH1 interaction with the Golgin-160 fragments is stronger than that with the intact Golgin-160, with its interaction regulated by the oxidation state of Cys-463 within GOLPH1, suggesting that the nuclear localization of the caspase-cleaved Golgin-160 fragments is a highly coordinated event. GOLPH1 has also been found to interact with Numb, a cytosolic signaling protein that mediates asymmetric cell division of neural progenitor cells to a daughter progenitor cell and a neuron, suggesting that Golgi fragmentation and reconstitution during the cell cycle differentially regulate Numb signaling through changes in GOLPH1 subcellular distribution and may couple cell fate with cell cycle progression.

### GOLPH1 Antibody - References

Sohda M, Misumi Y, Yamamoto A, et al. Identification and characterization of a novel Golgi protein, GCP60, that interacts with the integral membrane protein giantin. *J. Biol. Chem.*2001; 276:45298-306.

Mancini M, Machamer CE, Roy S, et al. Caspase-2 is localized at the Golgi complex and cleaves golgin-160 during apoptosis. *J. Cell Biol.*2000; 149:603-12.

Sbodio JI and Machamer CE. Identification of a redox-sensitive cysteine in GCP60 that regulates its interaction with Golgin-160. *J. Biol. Chem.*2007; 282:29874-81.

Zhou Y, Atkins JB, Rompani SB, et al. The mammalian Golgi regulates numb signaling in asymmetric cell division by releasing ACBD3 during mitosis. *Cell*2007; 129:163-78.