

### **GM130** Antibody

Rabbit mAb Catalog # AP90199

#### **Specification**

### **GM130 Antibody - Product Information**

Application WB, IHC, ICC, IP

Primary Accession
Reactivity
Rat, Dog
Clonality
Monoclonal

**Other Names** 

GM130; Gm130 autoantigen; GOLGA 2; Golga2; Golgi autoantigen; Golgin 95;

Isotype Rabbit IgG
Host Rabbit
Calculated MW 113086 Da

### **GM130 Antibody - Additional Information**

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

**GM130** 

Description Golgi auto-antigen; probably involved in

maintaining cis-Golgi structure. The Golgi

apparatus, which participates in

glycosylation and transport of proteins and lipids in the secretory pathway, consists of a series of stacked cisternae (flattened membrane sacs). Interactions between the Golgi and microtubules are thought to be important for the reorganization of the Golgi after it fragments during mitosis. This gene encodes one of the golgins, a family of proteins localized to the Golgi.

Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid

freeze / thaw cycle.

## **GM130 Antibody - Protein Information**

Storage Condition and Buffer

#### Name GOLGA2

#### **Function**

Peripheral membrane component of the cis-Golgi stack that acts as a membrane skeleton that maintains the structure of the Golgi apparatus, and as a vesicle thether that facilitates vesicle fusion to the Golgi membrane (Probable) (PubMed:<a

href="http://www.uniprot.org/citations/16489344" target="\_blank">16489344</a>). Required for



normal protein transport from the endoplasmic reticulum to the Golgi apparatus and the cell membrane (By similarity). Together with p115/USO1 and STX5, involved in vesicle tethering and fusion at the cis-Golgi membrane to maintain the stacked and inter-connected structure of the Golgi apparatus. Plays a central role in mitotic Golgi disassembly: phosphorylation at Ser-37 by CDK1 at the onset of mitosis inhibits the interaction with p115/USO1, preventing tethering of COPI vesicles and thereby inhibiting transport through the Golgi apparatus during mitosis (By similarity). Also plays a key role in spindle pole assembly and centrosome organization (PubMed:<a href="http://www.uniprot.org/citations/26165940" target=" blank">26165940</a>). Promotes the mitotic spindle pole assembly by activating the spindle assembly factor TPX2 to nucleate microtubules around the Golgi and capture them to couple mitotic membranes to the spindle: upon phosphorylation at the onset of mitosis, GOLGA2 interacts with importin-alpha via the nuclear localization signal region, leading to recruit importin-alpha to the Golgi membranes and liberate the spindle assembly factor TPX2 from importin-alpha. TPX2 then activates AURKA kinase and stimulates local microtubule nucleation. Upon filament assembly, nascent microtubules are further captured by GOLGA2, thus linking Golgi membranes to the spindle (PubMed:<a href="http://www.uniprot.org/citations/19242490" target=" blank">19242490</a>, PubMed:<a href="http://www.uniprot.org/citations/26165940" target="blank">26165940</a>). Regulates the meiotic spindle pole assembly, probably via the same mechanism (By similarity). Also regulates the centrosome organization (PubMed:<a

 $href="http://www.uniprot.org/citations/18045989" target="\_blank">18045989</a>, PubMed:<a href="http://www.uniprot.org/citations/19109421" target="\_blank">19109421</a>). Also required for the Golgi ribbon formation and glycosylation of membrane and secretory proteins (PubMed:<a href="http://www.uniprot.org/citations/16489344" target="_blank">16489344</a>, PubMed:<a href="http://www.uniprot.org/citations/17314401" target="_blank">17314401</a>).$ 

#### **Cellular Location**

Golgi apparatus, cis-Golgi network membrane; Peripheral membrane protein; Cytoplasmic side. Endoplasmic reticulum-Golgi intermediate compartment membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, cytoskeleton, spindle pole. Note=Associates with the mitotic spindle during mitosis (PubMed:26165940). {ECO:0000250|UniProtKB:Q62839, ECO:0000269|PubMed:26165940}

### **GM130 Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# GM130 Antibody - Images



