

**GOLGA2 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP9829b****Specification**

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**GOLGA2 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [Q08379](#)**GOLGA2 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 2801**Other Names**

Golgin subfamily A member 2, 130 kDa cis-Golgi matrix protein, GM130, GM130 autoantigen, Golgin-95, GOLGA2

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**GOLGA2 Antibody (C-term) Blocking Peptide - Protein Information****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 tether 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}

#### **GOLGA2 Antibody (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

#### **GOLGA2 Antibody (C-term) Blocking Peptide - Images**

#### **GOLGA2 Antibody (C-term) Blocking Peptide - Background**

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. This encoded protein has been postulated to play roles in the stacking of Golgi cisternae and in vesicular transport.

#### **GOLGA2 Antibody (C-term) Blocking Peptide - References**

Rivero, S., et al. EMBO J. 28(8):1016-1028(2009)Kodani, A., et al. Mol. Biol. Cell 20(4):1192-1200(2009)Diao, A., et al. J. Biol. Chem. 283(11):6957-6967(2008)Kodani, A., et al. Mol. Biol. Cell 19(2):745-753(2008)