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KD-Validated Anti-Golgin A2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1525

Product Information

Application	WB, FC, ICC
Primary Accession	Q08379
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB5570
Calculated MW	113086
Gene Name	GOLGA2
Aliases	GOLGA2; Golgin A2; GM130; Golgin-95; Golgi Autoantigen, Golgin Subfamily A, 2; 130 KDa Cis-Golgi Matrix Protein; Golgin Subfamily A Member 2; Golgi Matrix Protein GM130; GM130 Autoantigen; SY11 Protein; GOLGIN-95; DEDHMB
Immunogen	A synthesized peptide derived from human GM130

Additional Information

Gene ID	2801
Other Names	Golgin subfamily A member 2, 130 kDa cis-Golgi matrix protein, GM130, GM130 autoantigen, Golgin-95, GOLGA2

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 thether that facilitates vesicle fusion to the Golgi membrane (Probable) (PubMed:16489344). 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:26165940). 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:19242490, PubMed:26165940). Regulates the meiotic spindle pole assembly, probably via the same mechanism (By similarity). Also regulates the centrosome organization (PubMed:18045989, PubMed:19109421). Also required for the Golgi ribbon formation and glycosylation of membrane and secretory proteins (PubMed:16489344, PubMed:17314401).

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}

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