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KD-Validated Anti-Golgin A2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1525

Specification

KD-Validated Anti-Golgin A2 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q08379
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 113 kDa , observed, 130 kDa KDa**
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**

KD-Validated Anti-Golgin A2 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**2801**

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

KD-Validated Anti-Golgin A2 Rabbit Monoclonal Antibody - 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).

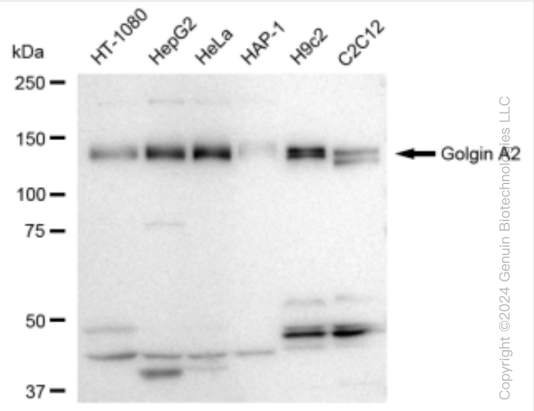
Cellular Location
Golgi apparatus, cis-Golgi network membrane; Peripheral membrane protein; Cytoplasmic side. Endoplasmic reticulum-Golgi intermediate compartment membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, cytoskeleton, spindle pole. Note=Associates with the mitotic spindle during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

KD-Validated Anti-Golgin A2 Rabbit Monoclonal 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 Cytomety
- Cell Culture

KD-Validated Anti-Golgin A2 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-Golgin A2 antibody (Cat#AGI1525). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Golgin A2 antibody (Cat#AGI1525, 1:5,000) and HRP-conjugated goat anti-rabbit secondary

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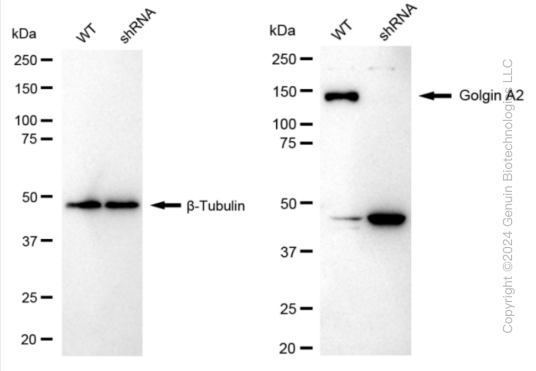
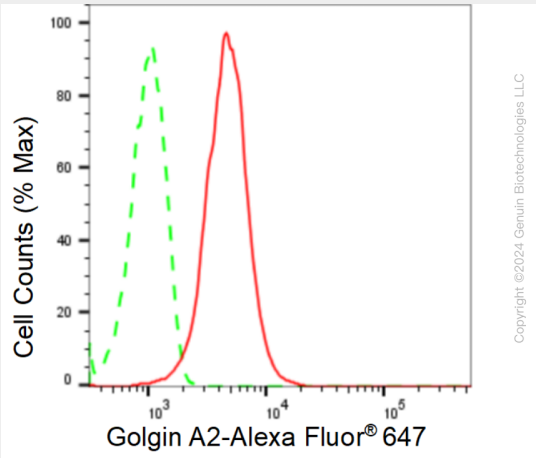
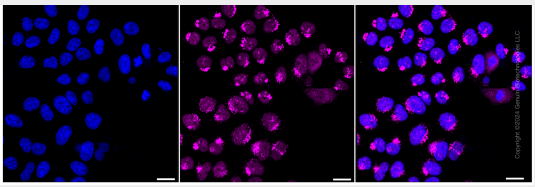
antibody respectively.



Western blotting analysis using anti-Golgin A2 antibody (Cat#AGI1525). Golgin A2 expression in wild type (WT) and Golgin A2 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Golgin A2 antibody (Cat#AGI1525, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Golgin A2 expression in HepG2 cells using Golgin A2 antibody (Cat#AGI1525, 1:2,000). Green, isotype control; red, Golgin A2.



Immunocytochemical staining of HepG2 cells with anti-Golgin A2 antibody (Cat#AGI1525, 1:1,000). Nuclei were stained blue with DAPI; Golgin A2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.