# Anti-GM130 Antibody [JE42-53]

## HA721282

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| **Product Type:** | Recombinant Rabbit monoclonal IgG, primary antibodies |
| **Species reactivity:** | Human, Mouse |
| **Applications:** | WB, IHC-P, IF-Cell |
| **Molecular Wt:** | Predicted band size: 113 kDa |
| **Clone number:** | JE42-53 |

**Description:** 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. 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. Also plays a key role in spindle pole assembly and centrosome organization. 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. 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. Regulates the meiotic spindle pole assembly, probably via the same mechanism. Also regulates the centrosome organization. Also required for the Golgi ribbon formation and glycosylation of membrane and secretory proteins.

**Immunogen:** Recombinant protein within human GM130 aa 1-100 (N terminal).

**Positive control:** HeLa cell lysate, MCF7 cell lysate, A549 cell lysate, human kidney tissue, mouse kidney tissue, MCF7.

**Subcellular location:** Cytoplasm, Cytoskeleton, Membrane, Microtubule.

**Database links:** SwissProt: Q08379 Human | Q921M4 Mouse

**Recommended Dilutions:**

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| **WB** | 1:1,000 |
| **IHC-P** | 1:1,000 |
| **IF-Cell** | 1:100 |

**Storage Buffer:** 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

**Purity:** Protein A affinity purified.

## Images

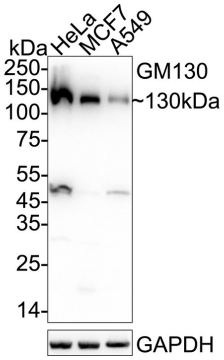


**Fig1:** Western blot analysis of GM130 on different lysates with Rabbit anti-GM130 antibody (HA721282) at 1/1,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: MCF7 cell lysate
Lane 3: A549 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 113 kDa
Observed band size: 130 kDa

Exposure time: 14 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721282) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

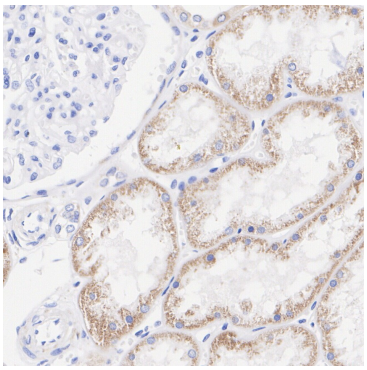

**Fig2:** Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-GM130 antibody (HA721282) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA721282) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

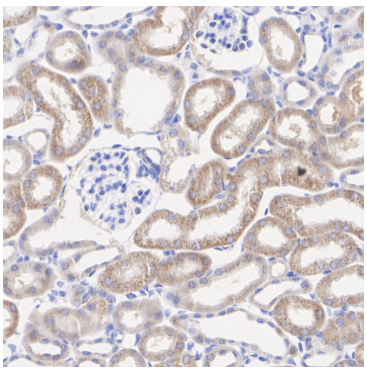

**Fig3:** Immunohistochemical analysis of paraffin-embedded mouse kidney tissue with Rabbit anti-GM130 antibody (HA721282) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA721282) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

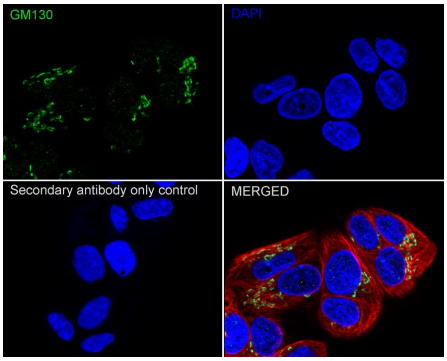


**Fig4:** Immunocytochemistry analysis of MCF7 cells labeling GM130 with Rabbit anti-GM130 antibody (HA721282) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-GM130 antibody (HA721282) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.



## Background References

1. Maxfield KE et al. Comprehensive functional characterization of cancer-testis antigens defines obligate participation in multiple hallmarks of cancer. Nat Commun 6:8840 (2015).
2. Mazzulli JR et al. a-Synuclein-induced lysosomal dysfunction occurs through disruptions in protein trafficking in human midbrain synucleinopathy models. Proc Natl Acad Sci U S A 113:1931-6 (2016).