

Anti-GM130 GOLGA2 Antibody Picoband™ (monoclonal, 6D4)

Catalog Number: M05865-2

About GOLGA2

Golgin subfamily A member 2 is a protein that in humans is encoded by the GOLGA2 gene. 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. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of these variants has not been determined.

Overview

Product Name	Anti-GM130 GOLGA2 Antibody Picoband™ (monoclonal, 6D4)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GM130 GOLGA2 Antibody Picoband™ (monoclonal, 6D4) catalog # M05865-2. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 6D4
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Mouse
Uniprot ID	Q08379

Technical Details

Immunogen	E. coli-derived human GM130 recombinant protein (Position: E796-E913).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Suggested Dilutions

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used Western blot, 0.1-0.5 μ g/ml

Immunohistochemistry (Paraffin-embedded Section), 0.5-1 μ g/ml

Immunocytochemistry/Immunofluorescence, 2 μ g/ml

Flow Cytometry, 1-3 μ g/1x10⁶ cells

For protocols, please visit <https://www.bosterbio.com/protocol-and-troubleshooting/>

Anti-GM130 GOLGA2 Antibody Picoband™ (monoclonal, 6D4) (M05865-2) Images

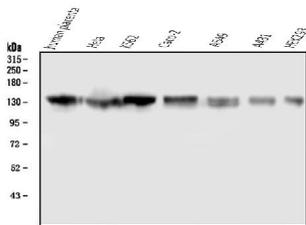


Figure 1. Western blot analysis of GM130 using anti-GM130 antibody (M05865-2).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50 μ g of sample under reducing conditions.

Lane 1: human placenta tissue lysates,

Lane 2: HeLa whole cell lysates,

Lane 3: K562 whole cell lysates,

Lane 4: Caco-2 whole cell lysates,

Lane 5: A549 whole cell lysates,

Lane 6: A431 whole cell lysates,

Lane 7: HEK293 whole cell lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes.

Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-GM130 antigen affinity purified monoclonal antibody (Catalog # M05865-2) at 0.5 μ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for GM130 at approximately 130KD. The expected band size for GM130 is at 130KD.

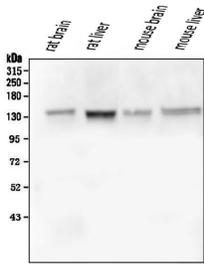
Figure 2. Western blot analysis of GM130 using anti-GM130 antibody (M05865-2).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50 μ g of sample under reducing conditions.

Lane 1: rat brain tissue lysates,

Lane 2: rat liver tissue lysates,

Lane 3: mouse brain tissue lysates,



Lane 4: mouse liver tissue lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-GM130 antigen affinity purified monoclonal antibody (Catalog # M05865-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for GM130 at approximately 130KD. The expected band size for GM130 is at 130KD.

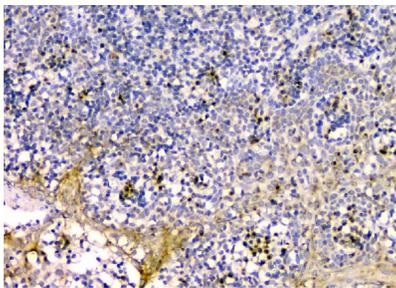


Figure 3. IHC analysis of GM130 using anti-GM130 antibody (M05865-2).

GM130 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-GM130 Antibody (M05865-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

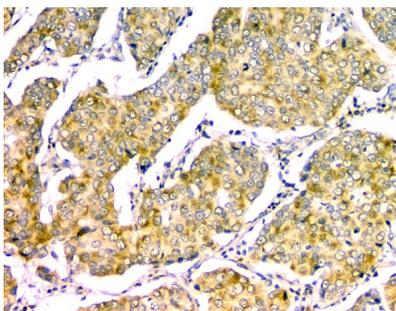


Figure 4. IHC analysis of GM130 using anti-GM130 antibody (M05865-2).

GM130 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-GM130 Antibody (M05865-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

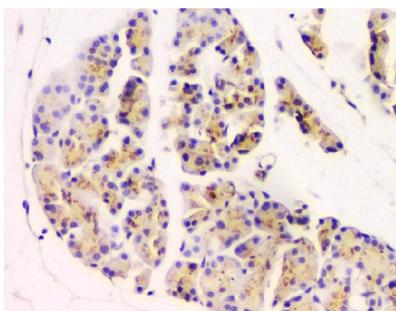


Figure 5. IHC analysis of GM130 using anti-GM130 antibody (M05865-2).

GM130 was detected in paraffin-embedded section of rat pancreas tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-GM130 Antibody (M05865-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

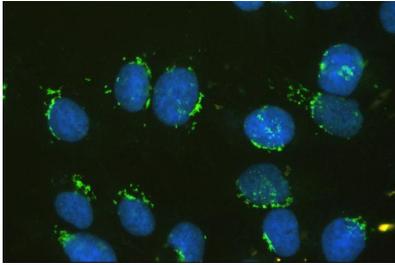


Figure 6. IF analysis of GM130 using anti-GM130 antibody (M05865-2). GM130 was detected in immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL mouse anti-GM130 Antibody (M05865-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

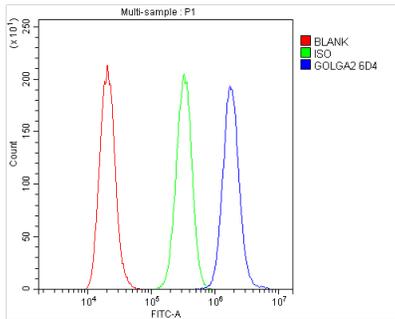


Figure 7. Flow Cytometry analysis of A431 cells using anti-GM130 antibody (M05865-2). Overlay histogram showing A431 cells stained with M05865-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-GM130 Antibody (M05865-2, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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