# Product Datasheet

## 58K Golgi Protein Antibody (58K-9)
## NB600-412

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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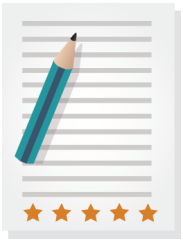
Updated 4/21/2024 v.20.1





# NB600-412

58K Golgi Protein Antibody (58K-9)

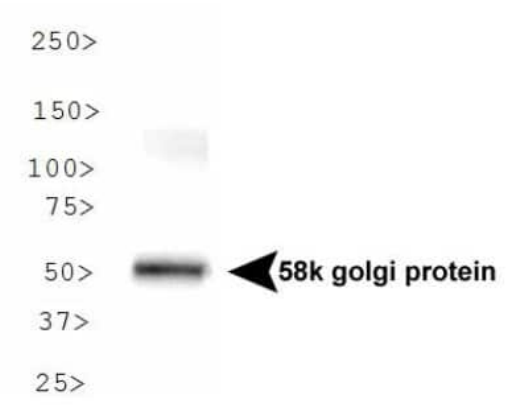
| Product Information | |
|---|---|
| **Unit Size** | 0.1 ml |
| **Concentration** | This product is unpurified. The exact concentration of antibody is not quantifiable. |
| **Storage** | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| **Clonality** | Monoclonal |
| **Clone** | 58K-9 |
| **Preservative** | 0.1% Sodium Azide |
| **Isotype** | IgG1 |
| **Purity** | Unpurified |
| **Buffer** | Ascites |
| **Target Molecular Weight** | 58 kDa |

| Product Description | |
|---|---|
| **Host** | Mouse |
| **Gene Symbol** | FTCD |
| **Species** | Human, Mouse, Rat, Bovine, Canine, Chicken |
| **Marker** | Golgi Apparatus Marker |
| **Immunogen** | 58K Golgi Protein purified from rat liver [UniProt# O88618] |

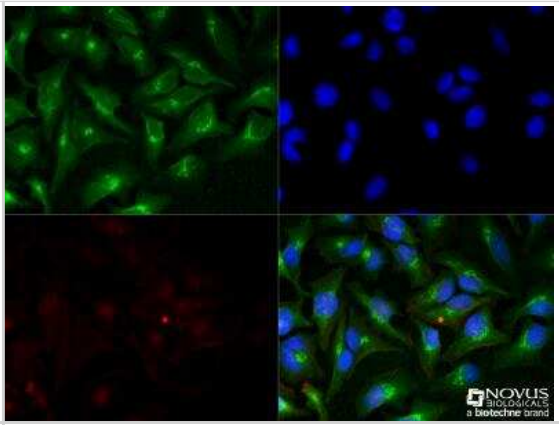
| Product Application Details | |
|---|---|
| **Applications** | Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin |
| **Recommended Dilutions** | Western Blot 1:2000 - 1:5000, Immunohistochemistry 1:100 - 1:200, Immunocytochemistry/ Immunofluorescence 1:50 - 1:250, Immunohistochemistry-Paraffin 1:100 - 1:200, Immunohistochemistry-Frozen reported in scientific literature (PMID 24505439) |
| **Application Notes** | In Western blot a band is observed at ~58 kDa. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors. |

## Images

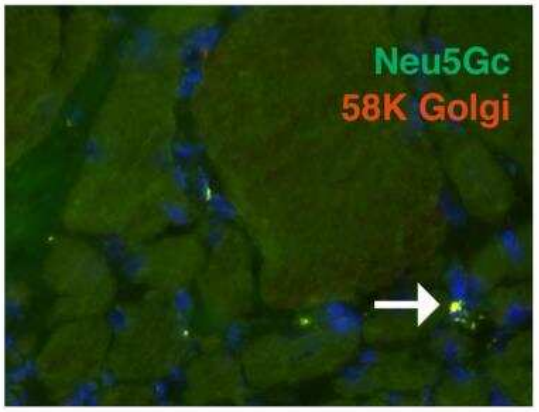
Western Blot: 58K Golgi Protein Antibody (58K-9) [NB600-412] - Analysis of 58K golgi protein expression in rat liver tissue using NB600-412.



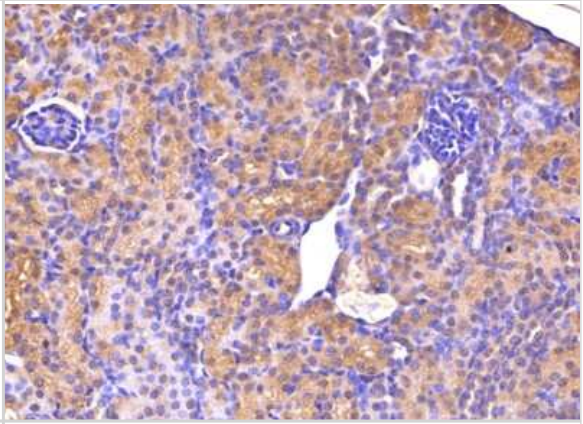
Immunocytochemistry/Immunofluorescence: 58K Golgi Protein Antibody (58K-9) [NB600-412] - HeLa cells, cultured on cover slips, were fixed with 10% formalin for 10 minutes and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were then incubated with 1:200 dilution of anti-58K Golgi Protein antibody (clone 58K-9) for overnight at 4C and detected with an anti-mouse Dylight 488 (Green) secondary at a 1:500 dilution. Alpha tubulin (DM1A) [NB100-690] was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at 1:500 dilution. Nuclei were counterstained with DAPI solution (Blue) [NBP2-31156]. Cells were imaged using a 40X objective. Antibody clone 58K-9 generated a specific signal in the Golgi apparatus of the cells.



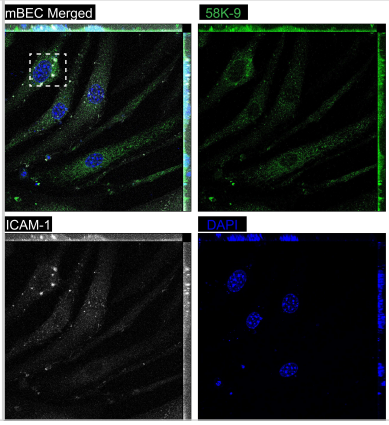
Immunohistochemistry: 58K Golgi Protein Antibody (58K-9) [NB600-412] - DMD muscle co-stained for Neu5Gc (green) with 58K Golgi, a Golgi marker, in red, and DAPI (blue). Arrow marks region of coincident staining (yellow) for Neu5Gc and 58K Golgi. Bar is 50 um. Image collected and cropped by CiteAb from the following publication (https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0088226) licensed under a CC-BY license.




Immunohistochemistry: 58K Golgi Protein Antibody (58K-9) [NB600-412] - Analysis of 58K Golgi Protein in mouse kidney using DAB with hematoxylin counterstain.



Immunocytochemistry/Immunofluorescence: 58K Golgi Protein Antibody (58K-9) [NB600-412] - Assessing Golgi morphology observed apoptosis in mBECs using Mouse 58K Golgi Protein at a dilution of 1:100 overnight at 4 °C. This image was taken on a Zeiss LSM 710 Confocal Microscope (META) with Zeiss Plan Apo 63x/1.40 oil. Image from verified customer review.



## Publications


Bharat V, Hsieh CH, Wang X Mitochondrial Defects in Fibroblasts of Pathogenic MAPT Patients Frontiers in cell and developmental biology 2021-11-03 [PMID: 34805172] (WB, Human)

Zhou A, Dong X, Tang B TNK2/ACK1 Strengthen Influenza A Virus Infection by Blocking Viral Matrix 2 Protein(M2) into Lysosome to Degradation Research Square 2021-01-29 (ICC/IF)

Martin PT, Golden B, Okerblom J et al. A Comparative Study of N-glycolylneuraminic Acid (Neu5Gc) and Cytotoxic T Cell (CT) Carbohydrate Expression in Normal and Dystrophin-Deficient Dog and Human Skeletal Muscle. PLoS ONE 2014-02-07 [PMID: 24505439] (IHC-Fr, Human)

Murphy AJ, Bijl N, Yvan-Charvet L et al. Cholesterol efflux in megakaryocyte progenitors suppresses platelet production and thrombocytosis. Nat Med 2013-05-01 [PMID: 23584088] (ICC/IF, Mouse)

Nakonechnaya AO, Jefferson HS, Chen X, Shewchuk BM. Differential effects of exogenous and autocrine growth hormone on LNCaP prostate cancer cell proliferation and survival J Cell Biochem 2012-12-13 [PMID: 23238889] (ICC/IF, Human)

Azad AK, Torrelles JB, Schlesinger LS. Mutation in the DC-SIGN cytoplasmic triacidic cluster motif markedly attenuates receptor activity for phagocytosis and endocytosis of mannose-containing ligands by human myeloid cells. J Leukoc Biol;84(6):1594-603. 2008-12-01 [PMID: 18772280]

Lippincott-Schwartz J, Cole NB, Marotta A, Conrad PA, Bloom GS. Kinesin is the motor for microtubule-mediated Golgi-to-ER membrane traffic. J Cell Biol;128(3):293-306. 1995-02-01 [PMID: 7844144] (ICC/IF, Rat, Human)

Young KG, Pinheiro B, Kothary R. A Bpag1 isoform involved in cytoskeletal organization surrounding the nucleus. Exp Cell Res;312(2):121-34. 2006-01-15 [PMID: 16289082] (ICC/IF, Rat, Mouse)

Gao YS, Alvarez C, Nelson DS, Sztul E. Molecular cloning, characterization, and dynamics of rat formiminotransferase cyclodeaminase, a Golgi-associated 58-kDa protein. J Biol Chem;273(50):33825-34. 1998-12-11 [PMID: 9837973] (ICC/IF, Rat)

Bashour AM, Bloom GS. 58K, a microtubule-binding Golgi protein, is a formiminotransferase cyclodeaminase. J Biol Chem;273(31):19612-7. 1998-07-31 [PMID: 9677387] (WB, Rat)

Hennig D, Scales SJ, Moreau A, Murley LL, De Mey J, Kreis TE. A formiminotransferase cyclodeaminase isoform is localized to the Golgi complex and can mediate interaction of trans-Golgi network-derived vesicles with microtubules. J Biol Chem;273(31):19602-11. 1998-07-31 [PMID: 9677386] (WB, ICC/IF, Human, Chicken)

Bloom GS, Brashear TA. A novel 58-kDa protein associates with the Golgi apparatus and microtubules. J Biol Chem 1989-09-25 [PMID: 2777777] (WB, ICC/IF, Rat)

## Procedures

**Protocol Specific for 58K golgi protein Antibody (58K-9) - Golgi Complex Marker**

Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 30 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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## Products Related to NB600-412

| | |
|---|---|
| HAF007 | Goat anti-Mouse IgG Secondary Antibody [HRP] |
| NB720-B | Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin] |
| NBP1-97005-0.5mg | Mouse IgG1 Isotype Control (MG1) |
| H00010841-Q01-10ug | Recombinant Human 58K Golgi Protein GST (N-Term) Protein |

**Limitations**
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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