

golgin 245 (G-7): sc-514775

BACKGROUND

Golgin 245 is also known as p230, GCP2, GOLG or Golgi autoantigen and is a 2,230 amino acid protein that is expressed as three isoforms. Golgin 245 is localized to the cytoplasm in cells and is a member of the golgin family, all of which are peripheral membrane proteins associated with the Golgi complex. Golgin 245 has a carboxyl-terminal GRIP domain, which attaches to the *trans*-Golgi network (TGN) and TGN-derived vesicles. It is thought that the interaction that takes place between golgin 245 and MACF1, which cross-links microtubules to the Actin cytoskeleton, allows proteins to be transported from the TGN to the cell periphery. Antibodies against golgin 245 are associated with two chronic disorders known as Sjögren's syndrome and Hepatitis B.

REFERENCES

1. Fritzler, M.J., et al. 1995. Molecular characterization of golgin 245, a novel Golgi complex protein containing a granin signature. *J. Biol. Chem.* 270: 31262-31268.
2. Cowan, D.A., et al. 2002. Characterization of mouse tGolgin-1 (golgin 245/*trans*-Golgi p230/256 kD golgin) and its upregulation during oligodendrocyte development. *DNA Cell Biol.* 21: 505-517.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602509. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Kakinuma, T., et al. 2004. Interaction between p230 and MACF1 is associated with transport of a glycosyl phosphatidyl inositol-anchored protein from the Golgi to the cell periphery. *Exp. Cell Res.* 298: 388-398.
5. Hicks, S.W. and Machamer, C.E. 2005. Isoform-specific interaction of golgin 160 with the Golgi-associated protein PIST. *J. Biol. Chem.* 280: 28944-28951.

CHROMOSOMAL LOCATION

Genetic locus: GOLGA4 (human) mapping to 3p22.2.

SOURCE

golgin 245 (G-7) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of golgin 245 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

golgin 245 (G-7) is available conjugated to agarose (sc-514775 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514775 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514775 PE), fluorescein (sc-514775 FITC), Alexa Fluor® 488 (sc-514775 AF488), Alexa Fluor® 546 (sc-514775 AF546), Alexa Fluor® 594 (sc-514775 AF594) or Alexa Fluor® 647 (sc-514775 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514775 AF680) or Alexa Fluor® 790 (sc-514775 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

golgin 245 (G-7) is recommended for detection of golgin 245 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for golgin 245 siRNA (h): sc-78158, golgin 245 shRNA Plasmid (h): sc-78158-SH and golgin 245 shRNA (h) Lentiviral Particles: sc-78158-V.

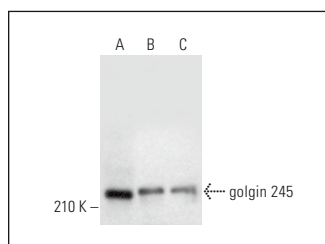
Molecular Weight of golgin 245: 261 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Hep G2 cell lysate: sc-2227.

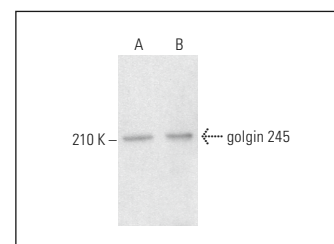
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



golgin 245 (G-7): sc-514775. Western blot analysis of golgin 245 expression in HeLa (A), Jurkat (B) and Hep G2 (C) whole cell lysates.



golgin 245 (G-7): sc-514775. Western blot analysis of golgin 245 expression in A-431 whole cell lysate (A) and human testis tissue extract (B).

SELECT PRODUCT CITATIONS

1. Kumari, S., et al. 2019. HIV-1 Nef-GCC185 interaction regulates assembly of cellular protein complexes at TGN targeting MHC-I downregulation. *Life Sci.* 229: 13-20.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.