SANTA CRUZ BIOTECHNOLOGY, INC.

golgin 84 (H-283): sc-134704

BACKGROUND

Golgin 84, also known as GOLGA5 (Golgi autoantigen, subfamily A, member 5), RFG5 (ret-fused gene 5 protein) or GOLIM5, is a ubiquitously expressed single-pass type II coiled-coil membrane protein. Localizing to the Golgi apparatus and predominantly found on membranes at the *cis* side of the Golgi stack, golgin 84 participates in the maintenance of Golgi structure and the formation of Golgi stacks and ribbons. The depletion of golgin 84 leads to fragmentation of the Golgi ribbon and reduced efficiency in protein transport. In addition, golgin 84 binds to active Rab 1 and associates with CASP (an isoform of CDP) in a golgin-tethering complex that is believed to play a role in intra-Golgi retrograde transport. During mitosis, golgin 84 is highly phosphorylated. Chromosomal translocations involving the gene encoding golgin 84 have been associated with cancer tissues. The chimeric proteins produced by this translocation are known as Ret-II and PTC5.

REFERENCES

1. Ishizaka, Y., et al. 1989. Activation of the Ret-II oncogene without a sequence encoding a transmembrane domain and transforming activity of two Ret-II oncogene products differing in carboxy-termini due to alternative splicing. Oncogene 4: 789-794.
2. Klugbauer, S., et al. 1998. Detection of a novel type of Ret rearrangement (PTC5) in thyroid carcinomas after Chernobyl and analysis of the involved RET-fused gene RFG5. Cancer Res. 58: 198-203.
3. Bascom, R.A., et al. 1999. Identification and characterization of golgin 84, a novel Golgi integral membrane protein with a cytoplasmic coiled-coil domain. J. Biol. Chem. 274: 2953-2962.
4. Diao, A., et al. 2003. The coiled-coil membrane protein golgin 84 is a novel Rab effector required for Golgi ribbon formation. J. Cell Biol. 160: 201-212.
5. Malsam, J., et al. 2005. Golgin tethers define subpopulations of COPI vesicles. Science 307: 1095-1098.

CHROMOSOMAL LOCATION

Genetic locus: GOLGA5 (human) mapping to 14q32.12; Golga5 (mouse) mapping to 12 E.

SOURCE

golgin 84 (H-283) is a rabbit polyclonal antibody raised against amino acids 343-625 mapping within an internal region of golgin 84 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

golgin 84 (H-283) is recommended for detection of golgin 84 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

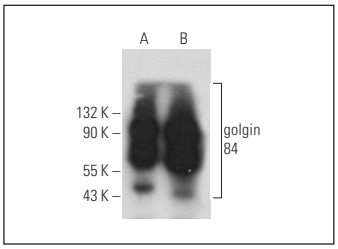
golgin 84 (H-283) is also recommended for detection of golgin 84 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for golgin 84 siRNA (h): sc-92331, golgin 84 siRNA (m): sc-145670, golgin 84 shRNA Plasmid (h): sc-92331-SH, golgin 84 shRNA Plasmid (m): sc-145670-SH, golgin 84 shRNA (h) Lentiviral Particles: sc-92331-V and golgin 84 shRNA (m) Lentiviral Particles: sc-145670-V.

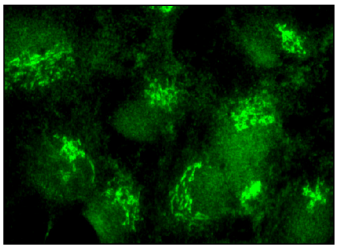
Molecular Weight of golgin 84: 84 kDa.

Positive Controls: SW-13 cell lysate: sc-24778, K-562 whole cell lysate: sc-2203 or ES-2 cell lysate: sc-24674.

DATA



golgin 84 (H-283): sc-134704. Western blot analysis of golgin 84 expression in K-562 (**A**) and SW-13 (**B**) whole cell lysates.



golgin 84 (H-283): sc-134704. Immunofluorescence staining of formalin-fixed Hep G2 cells showing Golgi apparatus localization.

SELECT PRODUCT CITATIONS

1. Jiang, Q., et al. 2014. Golgin-84-associated Golgi fragmentation triggers tau hyperphosphorylation by activation of cyclin-dependent kinase-5 and extracellular signal-regulated kinase. Neurobiol. Aging 35: 1352-1363.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.