

# Giantin (C-20): sc-46991

## BACKGROUND

GM130, a *cis*-Golgi matrix protein, interacts specifically with p115 and provides a membrane docking site. Both GM130 and p115 are involved in vesicle tethering to Golgi membranes. The protein p115 also binds p400, alternatively called giantin. Giantin, the majority of whose mass projects into the cytoplasm, is involved in the docking of COPI vesicles via p115 to the Golgi membrane. Giantin, which also is known as macrogolgin or Golgi complex-associated protein, is involved in cross-bridge formation in the Golgi complex. Giantin, which can form a homodimer, is a single-pass type I membrane protein that is an antigen in Sjogren syndrome and in chronic rheumatoid arthritis.

## REFERENCES

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2. Seelig, H.P., et al. 1994. Molecular genetic analyses of a 376 kDa Golgi complex membrane protein (giantin). *Mol. Cell. Biol.* 14: 2564-2576.
3. Stinton, L.M., et al. 2004. Autoantibodies to protein transport and messenger RNA processing pathways: endosomes, lysosomes, Golgi complex, proteasomes, assemblyosomes, exosomes and GW bodies. *Clin. Immunol.* 110: 30-44.
4. Ungewickell, A., et al. 2004. The inositol polyphosphate 5-phosphatase Ocri associates with endosomes that are partially coated with clathrin. *Proc. Natl. Acad. Sci. USA* 101: 13501-13506.
5. Sahashi, K., et al. 2004. Progressive myopathy with circulating autoantibody against giantin in the Golgi apparatus. *Neurolog.* 62: 1891-1893.
6. Beard, M., et al. 2005. A cryptic Rab1-binding site in the p115 tethering protein. *J. Biol. Chem.* 280: 25840-25848.
7. Malsam, J., et al. 2005. Golgin tethers define subpopulations of COPI vesicles. *Science* 307: 1095-1098.

## CHROMOSOMAL LOCATION

Genetic locus: Golgb1 (mouse) mapping to 16 B3.

## SOURCE

Giantin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Giantin of rat origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-46991 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Giantin (C-20) is recommended for detection of Giantin of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Giantin (C-20) is also recommended for detection of Giantin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Giantin siRNA (m): sc-60686, Giantin shRNA Plasmid (m): sc-60686-SH and Giantin shRNA (m) Lentiviral Particles: sc-60686-V.

Molecular Weight of Giantin: 376 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.