

GCC1 (Q-15): sc-162850

BACKGROUND

GCC1 (Golgi coiled-coil protein 1), also known as GRIP and coiled-coil domain-containing protein 1 or GCC88, is a 775 amino acid cytoplasmic and peripheral membrane protein of the Golgi apparatus. Involved in maintenance of Golgi structure, GCC1 is essential for retrograde transport of cargo from the early endosomes to the *trans*-Golgi network. GCC1 contains one GRIP domain and is encoded by a gene that maps to human chromosome 7q32.1. Chromosome 7 houses over 1,000 genes, comprises nearly 5% of the human genome and has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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2. Kjer-Nielsen, L., et al. 1999. A novel Golgi-localisation domain shared by a class of coiled-coil peripheral membrane proteins. *Curr. Biol.* 9: 385-388.
3. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. *Arch. Otolaryngol. Head Neck Surg.* 127: 705-708.
4. Luke, M.R., et al. 2003. GRIP domain-mediated targeting of two new coiled-coil proteins, GCC88 and GCC185, to subcompartments of the *trans*-Golgi network. *J. Biol. Chem.* 278: 4216-4226.
5. Lu, L., et al. 2003. Interaction of Arl1-GTP with GRIP domains recruits autoantigens Golgin-97 and Golgin-245/p230 onto the Golgi. *Mol. Biol. Cell* 14: 3767-3781.
6. Luke, M.R., et al. 2005. The *trans*-Golgi network GRIP-domain proteins form α -helical homodimers. *Biochem. J.* 388: 835-841.
7. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-565.
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CHROMOSOMAL LOCATION

Genetic locus: GCC1 (human) mapping to 7q32.1; Gcc1 (mouse) mapping to 6 A3.3.

SOURCE

GCC1 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GCC1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-162850 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GCC1 (Q-15) is recommended for detection of GCC1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with GCC2.

GCC1 (Q-15) is also recommended for detection of GCC1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GCC1 siRNA (h): sc-89413, GCC1 siRNA (m): sc-145357, GCC1 shRNA Plasmid (h): sc-89413-SH, GCC1 shRNA Plasmid (m): sc-145357-SH, GCC1 shRNA (h) Lentiviral Particles: sc-89413-V and GCC1 shRNA (m) Lentiviral Particles: sc-145357-V.

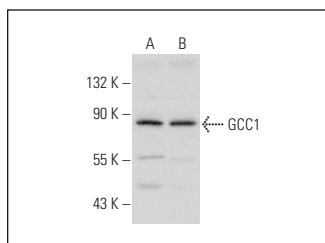
Molecular Weight of GCC1: 88 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HEK293 whole cell lysate: sc-45136 or U-251-MG whole cell lysate: sc-364176.

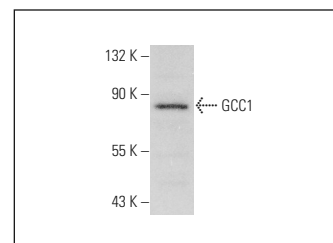
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



GCC1 (Q-15): sc-162850. Western blot analysis of GCC1 expression in HeLa (A) and HEK293 (B) whole cell lysates.



GCC1 (Q-15): sc-162850. Western blot analysis of GCC1 expression in U-251-MG whole cell lysate.

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.