

Chibby 3 (S-20): sc-246282

BACKGROUND

Chibby, also known as Cytosolic leucine-rich protein or PIGEA-14, is a 126 amino acid highly conserved protein that inhibits β -catenin-mediated transcriptional activation by competing with LEF-1 to bind β -catenin. Chibby may also play a role in the regulation of the intracellular location of Polycystin-2 and other intracellular proteins. Acting as a homodimer, Chibby is subcellularly localized to the nucleus and golgi apparatus within the trans-golgi network. Interaction with 14-3-3 results in the sequestration of Chibby to the cytoplasm and the formation of a stable complex with β -catenin, thereby facilitating nuclear export of β -catenin. Though widely expressed, Chibby is found at highest levels in skeletal muscle, heart, placenta and kidney. Down-regulation of Chibby is observed in thyroid and metastatic uterine tumors, suggesting that the gene encoding Chibby may function as a tumor suppressor. Chibby 3 is a 242 amino acid protein that belongs to the Chibby family.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607757. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Takemaru, K., et al. 2003. Chibby, a nuclear β -catenin-associated antagonist of the Wnt/Wingless pathway. *Nature* 422: 905-909.
3. Gad, S., et al. 2004. Is the gene encoding Chibby implicated as a tumour suppressor in colorectal cancer? *BMC Cancer* 4: 31.
4. Hidaka, S., et al. 2004. PIGEA-14, a novel coiled-coil protein affecting the intracellular distribution of polycystin-2. *J. Biol. Chem.* 279: 35009-35016.
5. Jung, Y., et al. 2006. TC1 (C8orf4) enhances the Wnt/ β -catenin pathway by relieving antagonistic activity of Chibby. *Cancer Res.* 66: 723-728.
6. Schuierer, M.M., et al. 2006. Reduced expression of β -catenin inhibitor Chibby in colon carcinoma cell lines. *World J. Gastroenterol.* 12: 1529-1535.
7. Li, F.Q., et al. 2007. Chibby promotes adipocyte differentiation through inhibition of β -catenin signaling. *Mol. Cell. Biol.* 27: 4347-4354.
8. Gall, C., et al. 2007. The intrinsically disordered TC-1 interacts with Chibby via regions with high helical propensity. *Protein Sci.* 16: 2510-2518.
9. Li, F.Q., et al. 2008. Chibby cooperates with 14-3-3 to regulate β -catenin subcellular distribution and signaling activity. *J. Cell Biol.* 181: 1141-1154.

CHROMOSOMAL LOCATION

Genetic locus: CBY3 (human) mapping to 5q35.3.

SOURCE

Chibby 3 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Chibby 3 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-246282 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Chibby 3 (S-20) is recommended for detection of Chibby 3 of human 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); non cross-reactive with Chibby.

Suitable for use as control antibody for Chibby 3 siRNA (h): sc-91954, Chibby 3 shRNA Plasmid (h): sc-91954-SH and Chibby 3 shRNA (h) Lentiviral Particles: sc-91954-V.

Molecular Weight of Chibby 3: 27 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.

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.

PROTOCOLS

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