

Chibby (FL-126): sc-292137

BACKGROUND

Chibby, also known as cytosolic leucine-rich protein and 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 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. Downregulation of Chibby is observed in thyroid and metastatic uterine tumors, suggesting that the gene encoding Chibby may function as a tumor suppressor.

REFERENCES

1. Takemaru, K., et al. 2003. Chibby, a nuclear β -catenin-associated antagonist of the Wnt/Wingless pathway. *Nature* 422: 905-909.
2. Online Mendelian Inheritance in Man, OMIM[™]. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607757. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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 TC1 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: CBY1 (human) mapping to 22q13.1; Cby1 (mouse) mapping to 15 E1.

SOURCE

Chibby (FL-126) is a rabbit polyclonal antibody raised against amino acids 1-126 representing full length Chibby 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.

APPLICATIONS

Chibby (FL-126) is recommended for detection of Chibby of human and, to a lesser extent, mouse and rat 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).

Chibby (FL-126) is also recommended for detection of Chibby in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Chibby siRNA (h): sc-72890, Chibby siRNA (m): sc-142327, Chibby shRNA Plasmid (h): sc-72890-SH, Chibby shRNA Plasmid (m): sc-142327-SH, Chibby shRNA (h) Lentiviral Particles: sc-72890-V and Chibby shRNA (m) Lentiviral Particles: sc-142327-V.

Molecular Weight of Chibby: 14 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.



Try **Chibby (C-10): sc-393295** or **Chibby (G-4): sc-393327**, our highly recommended monoclonal alternatives to Chibby (FL-126).