

# Chibby (C-10): sc-393295

## BACKGROUND

Chibby, also known as Cytosolic leucine-rich protein or PIGEA-14, is a 126 amino acid highly conserved protein that inhibits  $\beta$ -catenin-mediated transcriptional activation by competing with LEF-1 to bind  $\beta$ -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  $\beta$ -catenin, thereby facilitating nuclear export of  $\beta$ -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.

## 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  $\beta$ -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.

## CHROMOSOMAL LOCATION

Genetic locus: CBY1 (human) mapping to 22q13.1; Cby1 (mouse) mapping to 15 E1.

## SOURCE

Chibby (C-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 16-37 within an internal region of Chibby of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Chibby (C-10) is available conjugated to agarose (sc-393295 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393295 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393295 PE), fluorescein (sc-393295 FITC), Alexa Fluor® 488 (sc-393295 AF488), Alexa Fluor® 546 (sc-393295 AF546), Alexa Fluor® 594 (sc-393295 AF594) or Alexa Fluor® 647 (sc-393295 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393295 AF680) or Alexa Fluor® 790 (sc-393295 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393295 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

Chibby (C-10) is recommended for detection of Chibby of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

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.

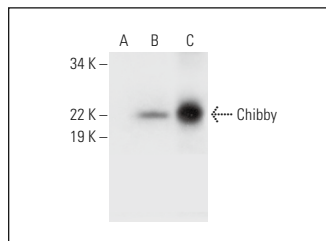
Molecular Weight of Chibby: 14 kDa.

Positive Controls: Chibby (h): 293T Lysate: sc-369175 or human kidney extract: sc-363764.

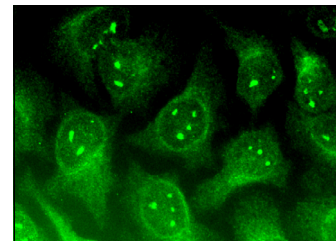
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Chibby (C-10): sc-393295. Western blot analysis of Chibby expression in non-transfected: sc-117752 (A) and human Chibby transfected: sc-369175 (B) 293T whole cell lysates and human kidney tissue extract (C).



Chibby (C-10): sc-393295. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar, nuclear and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Cai, C.F., et al. 2018. Anti-oncogenic activity of Chibby in the development of human nasopharyngeal carcinoma. *Oncol. Lett.* 15: 5849-5858.

## 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.