

# Rab 23 (427CT2.1.1): sc-517357

## BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies. Increasing data suggests an important role for Rab proteins in either endocytosis or in biosynthetic protein transport. The process of transporting newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves the movement of carrier vesicles and requires Rab protein function. Rab proteins are also an integral part of endocytic pathways. Rab 23, also known as HSPC137, is a 237 amino acid member of the Rab family of proteins and localizes to the cytoplasmic side of the cell membrane. Rab 23 is believed to play a role in intracellular protein transportation and signal transduction mediated by small GTPases. Mutations in the gene encoding Rab 23 may result in Carpenter syndrome, also known as ACPS2 (acrocephalopolysyndactyly type 2), a condition characterized by obesity, cardiac defects, polysyndactyly and craniosynostosis.

## REFERENCES

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2. Zhang, Q.H., et al. 2000. Cloning and functional analysis of cDNAs with open reading frames for 300 previously undefined genes expressed in CD34<sup>+</sup> hematopoietic stem/progenitor cells. *Genome Res.* 10: 1546-1560.
3. Eggenchwil, J.T., et al. 2001. Rab23 is an essential negative regulator of the mouse Sonic hedgehog signalling pathway. *Nature* 412: 194-198.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606144. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Jenkins, D., et al. 2007. RAB23 mutations in Carpenter syndrome imply an unexpected role for hedgehog signaling in cranial-suture development and obesity. *Am. J. Hum. Genet.* 80: 1162-1170.
6. Li, N., et al. 2007. Rab23 GTPase is expressed asymmetrically in Hensen's node and plays a role in the dorsoventral patterning of the chick neural tube. *Dev. Dyn.* 236: 2993-3006.
7. Hou, Q., et al. 2008. Integrative genomics identifies RAB23 as an invasion mediator gene in diffuse-type gastric cancer. *Cancer Res.* 68: 4623-4630.
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## CHROMOSOMAL LOCATION

Genetic locus: RAB23 (human) mapping to 6p11.2; Rab23 (mouse) mapping to 1 B.

## SOURCE

Rab 23 (427CT2.1.1) is a mouse monoclonal antibody raised against purified His-tagged Rab 23 protein fragment of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

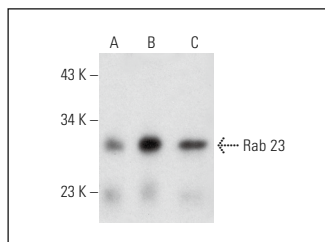
Rab 23 (427CT2.1.1) is recommended for detection of Rab 23 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Rab 23 siRNA (h): sc-95163, Rab 23 siRNA (m): sc-152630, Rab 23 shRNA Plasmid (h): sc-95163-SH, Rab 23 shRNA Plasmid (m): sc-152630-SH, Rab 23 shRNA (h) Lentiviral Particles: sc-95163-V and Rab 23 shRNA (m) Lentiviral Particles: sc-152630-V.

Molecular Weight of Rab 23: 27 kDa.

Positive Controls: rat brain extract: sc-2392, mouse brain extract: sc-2253 or human brain tissue extract.

## DATA



Rab 23 (427CT2.1.1): sc-517357. Western blot analysis of Rab 23 expression in human brain (A), mouse brain (B) and rat brain (C) tissue extracts.

## STORAGE

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

## PROTOCOLS

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