



# Rab 20 (169E2C): sc-517619

## BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies all of which are thought to play an important role in either endocytosis or in biosynthetic protein transport. The process of transporting newly synthesized proteins from the endoplasmic reticulum (ER) 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 20 (Ras-related protein Rab-20) is a 234 amino acid protein that localizes to the golgi apparatus and belongs to the Rab subfamily of small GTPases. Expressed in normal and cancerous pancreatic tissue, Rab 20 plays an important role in apical endocytosis and recycling and may be involved in the development of exocrine pancreatic adenocarcinomas.

## REFERENCES

1. Lütcke, A., Parton, R.G., Murphy, C., Olkkonen, V.M., Dupree, P., Valencia, A., Simons, K. and Zerial, M. 1994. Cloning and subcellular localization of novel Rab proteins reveals polarized and cell type-specific expression. *J. Cell Sci.* 107: 3437-3448.
2. McMurtrie, E.B., Barbosa MDFS, M. and Kingsmore, S.F. 1997. Genetic mapping of Rab20 on mouse chromosome 8. *Mamm. Genome* 8: 291-292.
3. Pereira-Leal, J.B. and Seabra, M.C. 2000. The mammalian Rab family of small GTPases: definition of family and subfamily sequence motifs suggests a mechanism for functional specificity in the Ras superfamily. *J. Mol. Biol.* 301: 1077-1087.
4. Stenmark, H. and Olkkonen, V.M. 2001. The Rab GTPase family. *Genome Biol.* 2: REVIEWS3007.
5. Pereira-Leal, J.B. and Seabra, M.C. 2001. Evolution of the Rab family of small GTP-binding proteins. *J. Mol. Biol.* 313: 889-901.
6. Pfeffer, S.R. 2005. Structural clues to Rab GTPase functional diversity. *J. Biol. Chem.* 280: 15485-15488.
7. Amillet, J.M., Ferbus, D., Real, F.X., Antony, C., Muleris, M., Gress, T.M. and Goubin, G. 2006. Characterization of human Rab20 overexpressed in exocrine pancreatic carcinoma. *Hum. Pathol.* 37: 256-263.
8. Das Sarma, J., Kaplan, B.E., Willemsen, D. and Koval, M. 2008. Identification of Rab20 as a potential regulator of connexin 43 trafficking. *Cell Commun. Adhes.* 15: 65-74.

## CHROMOSOMAL LOCATION

Genetic locus: RAB20 (human) mapping to 13q34.

## SOURCE

Rab 20 (169E2C) is a mouse monoclonal antibody raised against recombinant Rab 20 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Rab 20 (169E2C) is recommended for detection of Rab 20 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for Rab 20 siRNA (h): sc-76320, Rab 20 shRNA Plasmid (h): sc-76320-SH and Rab 20 shRNA (h) Lentiviral Particles: sc-76320-V.

Molecular Weight of Rab 20: 26 kDa.

## 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](http://www.scbt.com) for detailed protocols and support products.