

# Rab 13 (W-16) : sc-30374

## BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins, which includes the R-Ras, RAP, Ral/Rec and Rho/Rab superfamilies, exhibits 30-60% homology with Ras p21. Accumulating data suggests an important role for Rab proteins, either in endocytosis or in biosynthetic protein transport. The Rab family of small G proteins play an important role in determining the specificity of vesicular transport pathways. Rab 13 and Rab 3B localize to tight junctions in epithelial cells and to cytoplasmic vesicular structures in cells lacking tight junctions. Rab 13 can be detected in the junctional complex regions of a variety of epithelia, including intestine, kidney and liver.

## REFERENCES

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- Zahraoui, A., et al. 1994. A small Rab GTPase is distributed in cytoplasmic vesicles in non polarized cells but colocalizes with the tight junction marker ZO-1 in polarized epithelial cells. *J. Cell Biol.* 124: 101-115.
- Leek, J.P., et al. 1997. Assignment of the Rab13 gene (RAB13) to human chromosome band 12q13 by *in situ* hybridization. *Cytogenet. Cell Genet.* 79: 210-211.
- Sheth, B., et al. 2000. Differentiation of the epithelial apical junctional complex during mouse preimplantation development: a role for Rab 13 in the early maturation of the tight junction. *Mech. Dev.* 97: 93-104.
- Yamamoto, Y., et al. 2003. Distinct roles of Rab 3B and Rab 13 in the polarized transport of apical, basolateral and tight junctional membrane proteins to the plasma membrane. *Biochem. Biophys. Res. Commun.* 308: 270-275.

## CHROMOSOMAL LOCATION

Genetic locus: RAB13 (human) mapping to 1q21.3; Rab13 (mouse) mapping to 3 F1.

## SOURCE

Rab 13 (W-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rab 13 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30374 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

Rab 13 (W-16) is recommended for detection of Rab 13 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

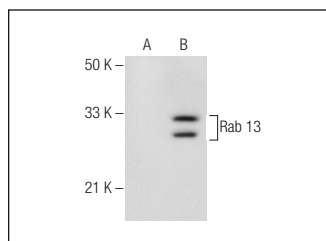
Rab 13 (W-16) is also recommended for detection of Rab 13 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Rab 13 siRNA (h): sc-44060, Rab 13 siRNA (m): sc-152627, Rab 13 shRNA Plasmid (h): sc-44060-SH, Rab 13 shRNA Plasmid (m): sc-152627-SH, Rab 13 shRNA (h) Lentiviral Particles: sc-44060-V and Rab 13 shRNA (m) Lentiviral Particles: sc-152627-V.

Molecular Weight of Rab 13: 25 kDa.

Positive Controls: Rab 13 (h): 293T Lysate: sc-129574.

## DATA



Rab 13 (W-16): sc-30374. Western blot analysis of Rab 13 expression in non-transfected: sc-117752 (A) and human Rab 13 transfected: sc-129574 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- McCaffrey, G., et al. 2007. Tight junctions contain oligomeric protein assembly critical for maintaining blood-brain barrier integrity *in vivo*. *J. Neurochem.* 103: 2540-2555.
- McCaffrey, G., et al. 2008. Occludin oligomeric assembly at tight junctions of the blood-brain barrier is disrupted by peripheral inflammatory hyperalgesia. *J. Neurochem.* 106: 2395-2409.
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Try **Rab 13 (8E8E2): sc-517224**, our highly recommended monoclonal alternative to Rab 13 (W-16).