

# Rab 8 (FL-207): sc-28572

## BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins, which includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies exhibit 30-60% homology with Ras p21. Accumulating data suggests an important role for Rab proteins, either in endocytosis or in biosynthetic protein transport. The transport of newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves at each stage the movement of carrier vesicles, a process that appears to involve Rab protein function. The possibility that Rab proteins might also direct the exocytosis from secretory vesicles to the plasma membrane is supported by the observation that in yeast, the SEC4 protein, which is 40% homologous to Rab proteins, is associated with secretory vesicles. At least eight members of the Rab subfamily have been identified, each of which is found at a particular stage of a membrane transport pathway.

## REFERENCES

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2. Baldini, G., Hohl, T., Lin, H.Y. and Lodish, H.F. 1992. Cloning of a Rab3 iso-type predominately expressed in adipocytes. Proc. Natl. Acad. Sci. USA 89: 5049-5052.
3. Chavrier, P., Simons, K. and Zerial, M. 1992. The complexity of the Rab and Rho GTP-binding protein subfamilies revealed by a PCR cloning approach. Gene 112: 261-264.
4. Takizawa, P. and Malhotra, V. 1993. Coatomers and SNAREs in promoting membrane traffic. Cell 75: 593-596.
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6. Ferro-Novick, S. and Novick, P. 1993. The role of GTP-binding proteins in transport along the exocytic pathway. Ann. Rev. Cell. Biol. 9: 575-599.
7. Chen, Y., Holcomb, C. and Moore, H.P. 1993. Expression and localization of two low molecular weight GTP-binding proteins, Rab8 and Rab10, by epitope tag. Proc. Natl. Acad. Sci. USA 90: 6508-6512.
8. Torti, M., Ramaschi, G., Sinigaglia, F., Lapetina, E.G. and Balduini, C. 1993. Association of the low molecular weight GTP-binding protein rap2B with the cytoskeleton during platelet aggregation. Proc. Natl. Acad. Sci. USA 90: 7553-7557.
9. Karniguian, A., Zahroui, A. and Tavitian, A. 1993. Identification of small GTP-binding rab proteins in human platelets: Thrombin-induced phosphorylation of rab3B, rab6, and rab8 proteins. Proc. Natl. Acad. Sci. USA 90: 7647-7651.

## SOURCE

Rab 8 (FL-207) is a rabbit polyclonal antibody raised against amino acids 1-207 representing full length Rab 8A 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.

## APPLICATIONS

Rab 8 (FL-207) is recommended for detection of Rab 8A, 8B, Rab 10 and 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); partially cross reactive with other Rab family members.

Rab 8 (FL-207) is also recommended for detection of Rab 8A, 8B, Rab 10 and Rab 13 in additional species, including equine, canine, bovine, porcine and avian.

## 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.

## SELECT PRODUCT CITATIONS

1. Macías-Sánchez, K., García-Soto, J., López-Ramírez, A. and Martínez-Cadena, G. 2011. Rho1 and other GTP-binding proteins are associated with vesicles carrying glucose oxidase activity from *Fusarium oxysporum* f. sp. *lycopersici*. Antonie Van Leeuwenhoek 99: 671-680.

## 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) or our catalog for detailed protocols and support products.


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Try **Rab 8B (1E4): sc-517045**, our highly recommended monoclonal alternative to Rab 8 (FL-207).