

# Rab 5 (FL-215): sc-28570

## 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

1. Pfeffer, S.R. 1992. GTP-binding proteins in intracellular transport. Trends Cell Biol. 2: 41-46.
2. Baldini, G., et al. 1992. Cloning of a Rab 3 isotype predominately expressed in adipocytes. Proc. Natl. Acad. Sci. USA 89: 5049-5052.

## SOURCE

Rab 5 (FL-215) is a rabbit polyclonal antibody raised against amino acids 1-215 representing full length Rab 5A 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.

Available as agarose conjugate for immunoprecipitation, sc-28570 AC, 500 µg/0.25 ml agarose in 1 ml.

## APPLICATIONS

Rab 5 (FL-215) is recommended for detection of Rab 5A, Rab 5B and Rab 5C 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 5 (FL-215) is also recommended for detection of Rab 5A, Rab 5B and Rab 5C in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Rab 5: 25 kDa.

Positive Controls: Rab 5A (h2): 293 Lysate: sc-112278, HeLa whole cell lysate: sc-2200 or Rab 5A (m2): 293T Lysate: sc-122911.

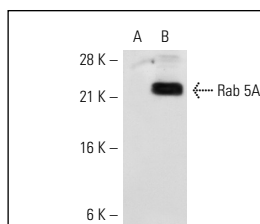
## STORAGE

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

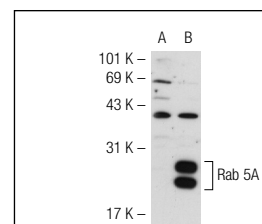
## RESEARCH USE

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

## DATA



Rab 5 (FL-215): sc-28570. Western blot analysis of Rab 5A expression in non-transfected: sc-110760 (A) and human Rab 5A transfected: sc-112278 (B) 293 whole cell lysates.



Rab 5 (FL-215): sc-28570. Western blot analysis of Rab 5A expression in non-transfected: sc-117752 (A) and mouse Rab 5A transfected: sc-122911 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Filipeanu, C.M., et al. 2006. Enhancement of the recycling and activation of  $\beta$ -adrenergic receptor by Rab 4 GTPase in cardiac myocytes. J. Biol. Chem. 281: 11097-11103.
2. He, W., et al. 2008. FcRn-mediated antibody transport across epithelial cells revealed by electron tomography. Nature 455: 542-546.
3. Barroso-Gonzalez, J., et al. 2009. Moesin regulates the trafficking of nascent clathrin-coated vesicles. J. Biol. Chem. 284: 2419-2434.
4. Jansen, F.H., et al. 2009. Exosomal secretion of cytoplasmic prostate cancer xenograft-derived proteins. Mol. Cell. Proteomics 8: 1192-1205.
5. Zumaquero, E., et al. 2010. Exosomes from human lymphoblastoid B cells express enzymatically active CD38 that is associated with signaling complexes containing CD81, Hsc-70 and Lyn. Exp. Cell Res. 316: 2692-2706.
6. Wei, J., et al. 2010. Regulation of AMPA receptor trafficking and function by glycogen synthase kinase 3. J. Biol. Chem. 285: 26369-26376.
7. Berger, S.B., et al. 2010. SLAM is a microbial sensor that regulates bacterial phagosome functions in macrophages. Nat. Immunol. 11: 920-927.
8. Dou, Z., et al. 2013. Class IA PI3K p110 $\beta$  subunit promotes autophagy through Rab5 small GTPase in response to growth factor limitation. Mol. Cell 50: 29-42.

## PROTOCOLS

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

**MONOS**  
Satisfaction  
Guaranteed

Try **Rab 5 (D-11): sc-46692**, our highly recommended monoclonal alternative to Rab 5 (FL-215). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Rab 5 (D-11): sc-46692**.