

# Rab 33A (EA-65): sc-130433

## 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 33B and Rab 33A share conserved effector domains, but share only 55.3% overall amino acid identity. This suggests that Rab 33B and Rab 33A may interact with similar effector and regulatory proteins. Rab 33B is a ubiquitously expressed member of the Rab family of proteins and co-localizes with  $\alpha$ -mannosidase II (a Golgi marker) at the medial-Golgi cisternae. Rab 33B is believed to participate in intra-Golgi transport. Rab 33A is predominantly expressed in CD8<sup>+</sup> T cells and is involved in tuberculosis (TB) processes.

## REFERENCES

- Zheng, J.Y., et al. 1998. A novel Rab GTPase, Rab 33B, is ubiquitously expressed and localized to the medial Golgi cisternae. *J. Cell Sci.* 111: 1061-1069.
- Valsdottir, R., et al. 2001. Identification of RABAPTIN-5, Rabex-5, and GM130 as putative effectors of Rab 33B, a regulator of retrograde traffic between the Golgi apparatus and ER. *FEBS Lett.* 508: 201-209.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605950. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Junutula, J.R., et al. 2004. Rab14 is involved in membrane trafficking between the Golgi complex and endosomes. *Mol. Biol. Cell* 15: 2218-2229.
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## CHROMOSOMAL LOCATION

Genetic locus: RAB33A (human) mapping to Xq26.1.

## SOURCE

Rab 33A (EA-65) is a mouse monoclonal antibody raised against recombinant Rab 33A of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

Rab 33A (EA-65) is recommended for detection of Rab 33A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Rab 33A siRNA (h): sc-90847, Rab 33A shRNA Plasmid (h): sc-90847-SH and Rab 33A shRNA (h) Lentiviral Particles: sc-90847-V.

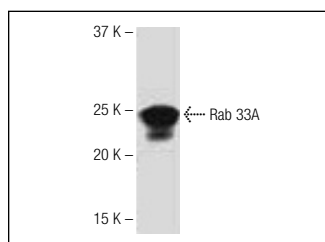
Molecular Weight of Rab 33A: 27 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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).

## DATA



Rab 33A (EA-65): sc-130433. Western blot analysis of Rab 33A expression in HL-60 whole cell lysate.

## 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.