

# Rab 33A/B (H-41): sc-99116

## 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.

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## CHROMOSOMAL LOCATION

Genetic locus: RAB33A (human) mapping to Xq26.1, RAB33B (human) mapping to 4q31.1; Rab33a (mouse) mapping to X A4, Rab33b (mouse) mapping to 3 C.

## SOURCE

Rab 33A/B (H-41) is a rabbit polyclonal antibody raised against amino acids 35-75 mapping near the N-terminus of Rab 33A of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Rab 33A/B (H-41) is recommended for detection of Rab 33A and Rab 33B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 33A/B (H-41) is also recommended for detection of Rab 33A and Rab 33B in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Rab 33A/B: 27 kDa.

## 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.

## 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.


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Try **Rab 33A/B (D-12): sc-271199** or **Rab 33B (RR-3): sc-81920**, our highly recommended monoclonal alternatives to Rab 33A/B (H-41).