

# Rab 9 p40 (L-14): sc-107078

## BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies all of which are thought to play an important role in either endocytosis or in biosynthetic protein transport. The process of transporting newly synthesized proteins from the endoplasmic reticulum (ER) 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 9 p40, also known as RABEPK (Rab9 effector protein with kelch motifs) or p40 is a 372 amino acid protein that localizes to both the cytoplasm and the endosomal membrane and contains 5 kelch repeats. Existing as multiple alternatively spliced isoforms, Rab 9 p40 interacts with PIP5KIII and functions as a Rab 9 effector protein that is required for protein transport from the endosome to the *trans*-Golgi network. Rab 9 p40 is subject to post-translational phosphorylation on select serine residues.

## REFERENCES

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- Díaz, E., et al. 1997. A novel Rab9 effector required for endosome-to-TGN transport. *J. Cell Biol.* 138: 283-290.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605962. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Barbero, P., et al. 2002. Visualization of Rab9-mediated vesicle transport from endosomes to the *trans*-Golgi in living cells. *J. Cell Biol.* 156: 511-518.
- Ikonomov, O.C., et al. 2003. Active PIKfyve associates with and promotes the membrane attachment of the late endosome-to-*trans*-Golgi network transport factor Rab 9 effector p40. *J. Biol. Chem.* 278: 50863-50871.
- Aivazian, D., et al. 2006. TIP47 is a key effector for Rab9 localization. *J. Cell Biol.* 173: 917-926.

## CHROMOSOMAL LOCATION

Genetic locus: RABEPK (human) mapping to 9q33.3; Rabepk (mouse) mapping to 2 B.

## SOURCE

Rab 9 p40 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rab 9 p40 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-107078 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Rab 9 p40 (L-14) is recommended for detection of Rab 9 p40 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 9 p40 (L-14) is also recommended for detection of Rab 9 p40 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Rab 9 p40 siRNA (h): sc-92773, Rab 9 p40 siRNA (m): sc-152652, Rab 9 p40 shRNA Plasmid (h): sc-92773-SH, Rab 9 p40 shRNA Plasmid (m): sc-152652-SH, Rab 9 p40 shRNA (h) Lentiviral Particles: sc-92773-V and Rab 9 p40 shRNA (m) Lentiviral Particles: sc-152652-V.

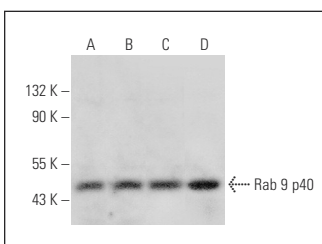
Molecular Weight of Rab 9 p40: 40 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or mouse brain extract: sc-2253.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## DATA



Rab 9 p40 (L-14): sc-107078. Western blot analysis of Rab 9 p40 expression in HeLa (A), K-562 (B) and U-251-MG (C) whole cell lysates and mouse brain tissue extract (D).

## 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.