

# Rab 42 (K-12): sc-165323

## 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 42 (putative Ras-related protein Rab-42) is a 105 amino acid protein that belongs to the small GTPase superfamily. Rab 42 is encoded by a gene on chromosome 1. Chromosome 1 is the largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, many of which are associated with genetic diseases, including Hutchinson-Gilford progeria, familial adenomatous polyposis, Stickler syndrome, Gaucher disease and Usher syndrome.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: RAB42 (human) mapping to 1p35.3; Rab42 (mouse) mapping to 4 D2.3.

## SOURCE

Rab 42 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rab 42 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-165323 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Rab 42 (K-12) is recommended for detection of Rab 42 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other Rab family members.

Rab 42 (K-12) is also recommended for detection of Rab 42 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Rab 42 siRNA (h): sc-78688, Rab 42 siRNA (m): sc-152647, Rab 42 shRNA Plasmid (h): sc-78688-SH, Rab 42 shRNA Plasmid (m): sc-152647-SH, Rab 42 shRNA (h) Lentiviral Particles: sc-78688-V and Rab 42 shRNA (m) Lentiviral Particles: sc-152647-V.

Molecular Weight of Rab 42: 11 kDa.

## 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™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) 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™ 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.

## PROTOCOLS

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