

# Rab 6A (38-TB): sc-81913

## 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 6A is a ubiquitously expressed member of the Rab family of proteins and localizes to the Golgi membrane where it regulates retrograde transport from the late endosomes via the Golgi to endoplasmic reticulum (ER) pathway. Three isoforms exist due to alternative splicing events, namely the ubiquitously expressed isoforms Rab 6A' and Rab 6A, and the brain-specific isoform Rab 6B.

## REFERENCES

1. Zahraoui, A., et al. 1989. The human Rab genes encode a family of GTP-binding proteins related to yeast YPT1 and SEC4 products involved in secretion. *J. Biol. Chem.* 264: 12394-12401.
2. Rousseau-Merck, M.F., et al. 1991. Chromosome assignment of four Ras-related Rab genes. *Hum. Genet.* 86: 350-354.

## CHROMOSOMAL LOCATION

Genetic locus: RAB6A (human) mapping to 11q13.4; Rab6a (mouse) mapping to 7 E3.

## SOURCE

Rab 6A (38-TB) is a mouse monoclonal antibody raised against recombinant Rab 6A of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Rab 6A (38-TB) is recommended for detection of Rab 6A 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rab 6A siRNA (h): sc-41822, Rab 38 siRNA (m): sc-152642, Rab 6A shRNA Plasmid (h): sc-41822-SH, Rab 38 shRNA Plasmid (m): sc-152642-SH, Rab 6A shRNA (h) Lentiviral Particles: sc-41822-V and Rab 38 shRNA (m) Lentiviral Particles: sc-152642-V.

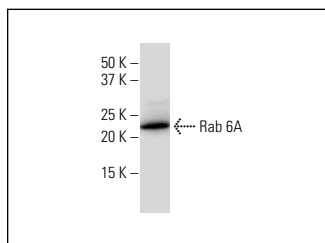
Molecular Weight of Rab 6A various isoforms: 23-25 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or HL-60 whole cell lysate: sc-2209.

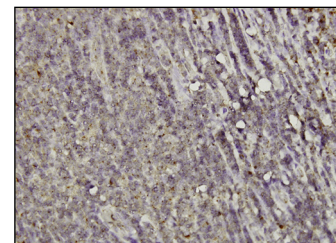
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Rab 6A (38-TB): sc-81913. Western blot analysis of Rab 6A expression in HL-60 whole cell lysate.



Rab 6A (38-TB): sc-81913. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Pieri, L., et al. 2016. Cellular response of human neuroblastoma cells to α-synuclein fibrils, the main constituent of Lewy bodies. *Biochim. Biophys. Acta* 1860: 8-19.
2. Pauwels, A.M., et al. 2019. Spatiotemporal changes of the phagosomal proteome in dendritic cells in response to LPS stimulation. *Mol. Cell. Proteomics* 18: 909-922.
3. Frisbie, C.P., et al. 2019. Post-ER stress biogenesis of Golgi is governed by giantin. *Cells* 8: 1631.
4. De Luca, M., et al. 2021. Role of the V1G1 subunit of V-ATPase in breast cancer cell migration. *Sci. Rep.* 11: 4615.
5. Sharoar, M.G., et al. 2021. Accumulation of saposin in dystrophic neurites is linked to impaired lysosomal functions in Alzheimer's disease brains. *Mol. Neurodegener.* 16: 45.

## 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.