

RAB3IL1 (Y-15): sc-162066

BACKGROUND

RAB3IL1, also known as guanine nucleotide exchange factor for Rab-3A, is a 382 amino acid protein that belongs to the SEC2 family. As a GTPase that regulates synaptic vesicle exocytosis, RAB3IL1 is a guanine nucleotide exchange factor (GEF) for Rab3A. RAB3IL1 competes for an interaction with Rab3A and IHPK1 through its coiled coil domain, which does not require IHPK1 kinase activity. Existing as two alternatively splice isoforms, the RAB3IL1 gene is conserved in chimpanzee, dog, cow, mouse, rat, chicken and C.elegans, and maps to human chromosome 11q12.3. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11.

REFERENCES

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- Rual, J.F., et al. 2005. Towards a proteome-scale map of the human protein-protein interaction network. *Nature* 437: 1173-1178.
- Zehelein, J., et al. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. *J. Biol. Chem.* 281: 35397-35403.
- Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
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CHROMOSOMAL LOCATION

Genetic locus: RAB3IL1 (human) mapping to 11q12.2; Rab3il1 (mouse) mapping to 19 A.

SOURCE

RAB3IL1 (Y-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RAB3IL1 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-162066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

RAB3IL1 (Y-15) is recommended for detection of RAB3IL1 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).

RAB3IL1 (Y-15) is also recommended for detection of RAB3IL1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RAB3IL1 siRNA (h): sc-96337, RAB3IL1 siRNA (m): sc-152665, RAB3IL1 shRNA Plasmid (h): sc-96337-SH, RAB3IL1 shRNA Plasmid (m): sc-152665-SH, RAB3IL1 shRNA (h) Lentiviral Particles: sc-96337-V and RAB3IL1 shRNA (m) Lentiviral Particles: sc-152665-V.

Molecular Weight of RAB3IL1 Isoforms 1: 43 kDa.

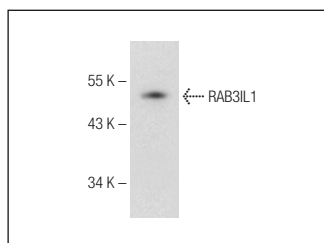
Molecular Weight of RAB3IL1 Isoforms 2: 40 kDa.

Positive Controls: T98G cell lysate: sc-2294, HeLa whole cell lysate: sc-2200 or U-87 MG cell lysate: sc-2411.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



RAB3IL1 (Y-15): sc-162066. Western blot analysis of RAB3IL1 expression in T98G whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.