

RBEL1 (D-16): sc-163278

BACKGROUND

Rab family proteins are generally known as regulators of protein transport and trafficking. A number of Rab proteins have been implicated in cancer development and/or progression. RBEL1 (Rab-like protein 1), also known as PARF (putative GTP-binding protein Parf), is a 729 amino acid protein that may enhance cellular proliferation. It is suggested that an isoform of RBEL1 is overexpressed in two out of three primary breast tumors. RBEL1 has an N-terminal GTP-binding domain, followed by a Rab-like domain, two proline-rich sequences and a C-terminal nuclear localization signal. The RBEL1 protein may reduce growth inhibitory activity of one or more isoforms of p16. RBEL1 exists as five alternatively spliced isoforms and the gene encoding RBEL1 is conserved in canine, bovine, mouse, rat, zebrafish, mosquito and *C. elegans*. The RBEL1 gene maps to human chromosome 9q34.3.

REFERENCES

- Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
- Humphray, S.J., et al. 2004. DNA sequence and analysis of human chromosome 9. *Nature* 429: 369-374.
- Tompkins, V., et al. 2006. Identification of novel ARF binding proteins by two-hybrid screening. *Cell Cycle* 5: 641-646.
- Online Mendelian Inheritance in Man, OMIM[™]. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610615. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>.
- Montalbano, J., et al. 2007. RBEL1 is a novel gene that encodes a nucleocytoplasmic Ras superfamily GTP-binding protein and is overexpressed in breast cancer. *J. Biol. Chem.* 282: 37640-37649.
- Montalbano, J., et al. 2009. Identification and characterization of RBEL1 subfamily of GTPases in the Ras superfamily involved in cell growth regulation. *J. Biol. Chem.* 284: 18129-18142.

CHROMOSOMAL LOCATION

Genetic locus: RABL6 (human) mapping to 9q34.3; Rabl6 (mouse) mapping to 2 A3.

SOURCE

RBEL1 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RBEL1 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-163278 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

RBEL1 (D-16) is recommended for detection of RBEL1 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).

RBEL1 (D-16) is also recommended for detection of RBEL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RBEL1 siRNA (h): sc-92916, RBEL1 siRNA (m): sc-152721, RBEL1 shRNA Plasmid (h): sc-92916-SH, RBEL1 shRNA Plasmid (m): sc-152721-SH, RBEL1 shRNA (h) Lentiviral Particles: sc-92916-V and RBEL1 shRNA (m) Lentiviral Particles: sc-152721-V.

Molecular Weight of RBEL1 isoforms 1/2/3/4/5: 80/80/57/30/30 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.

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.