SANTA CRUZ BIOTECHNOLOGY, INC.

ARL8A/B (E-15): sc-99776



BACKGROUND

ADP-ribosylation factors (ARFs) are highly conserved guanine nucleotide binding proteins that enhance the ADP-ribosyltransferase activity of cholera toxin. ARF's are important in eukaryotic vesicular trafficking pathways and they play an essential role in the activation of phospholipase D (PC-PLD). ARL8A (ADP-ribosylation factor-like protein 8A), also known as ARL10B or GIE2, is a 186 amino acid protein that localizes to the membrane of late endosomes. Expressed ubiquitously, ARL8A is thought to play a role in lysosomal motility and may also be involved in chromosomal segregation events. The gene encoding ARL8A maps to human chromosome 1, which spans 260 million base pairs, houses over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

- Bonaldo, M.F., Lennon, G. and Soares, M.B. 1996. Normalization and subtraction: two approaches to facilitate gene discovery. Genome Res. 6: 791-806.
- Secombe, J. and Parkhurst, S.M. 2004. *Drosophila* Topors is a RING finger-containing protein that functions as a ubiquitin-protein isopeptide ligase for the hairy basic helix-loop-helix repressor protein. J. Biol. Chem. 279: 17126-17133.
- Okai, T., Araki, Y., Tada, M., Tateno, T., Kontani, K. and Katada, T. 2004. Novel small GTPase subfamily capable of associating with tubulin is required for chromosome segregation. J. Cell Sci. 117: 4705-4715.
- 4. Hofmann, I. and Munro, S. 2006. An N-terminally acetylated ARF-like GTPase is localised to lysosomes and affects their motility. J. Cell Sci. 119: 1494-1503.
- 5. Burguete, A.S., Fenn, T.D., Brunger, A.T. and Pfeffer, S.R. 2008. Rab and ARL GTPase family members cooperate in the localization of the golgin GCC185. Cell 132: 286-298.

CHROMOSOMAL LOCATION

Genetic locus: ARL8A (human) mapping to 1q32.1, ARL8B (human) mapping to 3p26.1; Arl8a (mouse) mapping to 1 E4, Arl8b (mouse) mapping to 6 E2.

SOURCE

ARL8A/B (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ARL8A of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99776 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

ARL8A/B (E-15) is recommended for detection of ARL8A and ARL8B 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).

ARL8A/B (E-15) is also recommended for detection of ARL8A and ARL8B in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of ARL8A: 21 kDa.

Molecular Weight of ARL8B: 22 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) Immunofluo-rescence: 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.