# ARL17 (C-14): sc-109503



The Power to Question

#### **BACKGROUND**

ADP-ribosylation factors (ARFs) are highly conserved guanine nucleotide binding proteins that enhance the ADP-ribosyltransferase activity of Cholera Toxin. ARFs are important in eukaryotic vesicular trafficking pathways and they play an essential role in the activation of phospholipase D (PC-PLD). ARL17 (ADP-ribosylation factor-like protein 17), also known as ARF1P2 or ARL17P1, is a 177 amino acid member of the ARF protein family. In human, there are two genes which have been identified as ARL17A and ARL17B that code for identical proteins and colocalize at chromosomal position 17q21.31. ARL17 functions as an activator of the cholera toxin catalytic subunit, an ADP-ribosyltransferase. Localized to the Golgi apparatus, ARL17 may also be involved in the modulation of vesicle budding and uncoating within the Golgi. ARL17 is expressed as three isoforms produced by alternative splicing events.

## **REFERENCES**

- Pasqualato, S., Renault, L. and Cherfils, J. 2002. Arf, Arl, Arp and Sar proteins: a family of GTP-binding proteins with a structural device for 'front-back' communication. EMBO Rep. 3: 1035-1041.
- Louro, R., Nakaya, H.I., Paquola, A.C., Martins, E.A., da Silva, A.M., Verjovski-Almeida, S. and Reis, E.M. 2004. RASL11A, member of a novel small monomeric GTPase gene family, is down-regulated in prostate tumors. Biochem. Biophys. Res. Commun. 316: 618-627.
- 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.
- Kahn, R.A., Volpicelli-Daley, L., Bowzard, B., Shrivastava-Ranjan, P., Li, Y., Zhou, C. and Cunningham, L. 2005. Arf family GTPases: roles in membrane traffic and microtubule dynamics. Biochem. Soc. Trans. 33: 1269-1272.
- Kahn, R.A., Cherfils, J., Elias, M., Lovering, R.C., Munro, S. and Schurmann, A. 2006. Nomenclature for the human Arf family of GTP-binding proteins: ARF, ARL, and SAR proteins. J. Cell Biol. 172: 645-650.
- 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.

# **CHROMOSOMAL LOCATION**

Genetic locus: ARL17B/ARL17A (human) mapping to 17q21.31.

#### **SOURCE**

ARL17 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ARL17 of human origin.

#### **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109503 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

ARL17 (C-14) is recommended for detection of ARL17A and ARL17B variants of 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); may cross-react with NBR2 (neighbor of BRCA1 gene 2).

Molecular Weight of ARL17: 19 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 or our catalog for detailed protocols and support products.

**Santa Cruz Biotechnology, Inc.** 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**