# SANTA CRUZ BIOTECHNOLOGY, INC.

# ARL15 (C-13): sc-107150



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 play an essential role in the activation of phospholipase D (PC-PLD). ARL15 (ADP-ribosylation factor-like 15), also known as ARFRP2 (ARF-related protein 2), is a 204 amino acid protein that belongs to the small GTPase superfamily and the ARF family. Conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, ARL15 participates in both GTP and nucleotide binding. ARL15 variants influence levels of Acrp30, an adipocyte-derived protein that is particularly heritable and inversely associated with risk of type 2 diabetes mellitus and coronary heart disease. ARL15 is encoded by a gene that maps to human chromosome 5q11.2.

# REFERENCES

- Shimada, T., et al. 1983. Induction of transformation by six classes of chemical carcinogens in adult rat liver epithelial cells. Cancer Res. 43: 5087-5092.
- Furukawa, K., et al. 1987. Enrichment and characterization of clonogenic epithelial cells from adult rat liver and initiation of epithelial cell strains. In Vitro Cell. Dev. Biol. 23: 339-348.
- Somani, S.M., et al. 1990. Eseroline, a metabolite of physostigmine, induces neuronal cell death. Toxicol. Appl. Pharmacol. 106: 28-37.
- 4. Gillingham, A.K., et al. 2007. The small G proteins of the Arf family and their regulators. Annu. Rev. Cell Dev. Biol. 23: 579-611.
- 5. Macqueen, D.J., et al. 2008. Evolution of follistatin in teleosts revealed through phylogenetic, genomic and expression analyses. Dev. Genes Evol. 218: 1-14.
- Richards, J.B., et al. 2009. A genome-wide association study reveals variants in ARL15 that influence adiponectin levels. PLoS Genet. 5: e1000768.
- 7. Barton, V.N., et al. 2010. Unique molecular characteristics of pediatric myxopapillary ependymoma. Brain Pathol. 20: 560-570.
- Cook, J.R., et al. 2010. Hypoadiponectinemia—cause or consequence of human "insulin resistance?" J. Clin. Endocrinol. Metab. 95: 1544-1554.
- Glessner, J.T., et al. 2010. A genome-wide study reveals copy number variants exclusive to childhood obesity cases. Am. J. Hum. Genet. 87: 661-666.

#### CHROMOSOMAL LOCATION

Genetic locus: ARL15 (human) mapping to 5q11.2; Arl15 (mouse) mapping to 13 D2.2.

# SOURCE

ARL15 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ARL15 of human origin.

#### **STORAGE**

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

# 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-107150 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

ARL15 (C-13) is recommended for detection of ARL15 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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); non cross-reactive with other ARL family members.

Suitable for use as control antibody for ARL15 siRNA (h): sc-91713, ARL15 siRNA (m): sc-141240, ARL15 shRNA Plasmid (h): sc-91713-SH, ARL15 shRNA Plasmid (m): sc-141240-SH, ARL15 shRNA (h) Lentiviral Particles: sc-91713-V and ARL15 shRNA (m) Lentiviral Particles: sc-141240-V.

Molecular Weight of ARL15: 23 kDa.

Positive Controls: Mouse thymus extract: sc-2406.

#### **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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



ARL15 (C-13): sc-107150. Western blot analysis of ARL15 expression in mouse thymus tissue extract.

#### **RESEARCH USE**

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