SANTA CRUZ BIOTECHNOLOGY, INC.

ARL9 (G-10): sc-393264

SANTA CRUZ BIOTECHNOLOGY

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. ARF's are important in eukaryotic vesicular trafficking pathways, and they play an essential role in the activation of phospholipase D (PC-PLD). ARL9 (ADP-ribosylation factor-like protein 9) is a 187 amino acid protein that belongs to the RAS superfamily of regulatory GTPases. ARL9 contains a conserved interswitch toggle that places it evolutionarily closer to the Arf family. The gene encoding ARL9 maps to chromosome 4q12 in humans and 5 C3.3 in mouse.

REFERENCES

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3. Louro, R., et al. 2004. RASL11A, member of a novel small monomeric GTPase gene family, is down-regulated in prostate tumors. Biochem. Biophys. Res. Commun. 316: 618-627.
4. Okai, T., et al. 2004. Novel small GTPase subfamily capable of associating with Tubulin is required for chromosome segregation. J. Cell Sci. 117: 4705-4715.
5. Kahn, R.A., et al. 2005. ARF family GTPases: roles in membrane traffic and microtubule dynamics. Biochem. Soc. Trans. 33: 1269-1272.
6. Haraguchi, T., et al. 2006. Expression of ADP-ribosylation factor-like protein 8B mRNA in the brain is down-regulated in mice fed a high-fat diet. Biosci. Biotechnol. Biochem. 70: 1798-1802.
7. Kahn, R.A., et al. 2006. Nomenclature for the human Arf family of GTP-binding proteins: ARF, ARL, and SAR proteins. J. Cell Biol. 172: 645-650.
8. 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.
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CHROMOSOMAL LOCATION

Genetic locus: ARL9 (human) mapping to 4q12; Arl9 (mouse) mapping to 5 C3.3.

SOURCE

ARL9 (G-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 51-78 within an internal region of ARL9 of mouse origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393264 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ARL9 (G-10) is recommended for detection of ARL9 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ARL9 siRNA (h): sc-89011, ARL9 siRNA (m): sc-105089, ARL9 shRNA Plasmid (h): sc-89011-SH, ARL9 shRNA Plasmid (m): sc-105089-SH, ARL9 shRNA (h) Lentiviral Particles: sc-89011-V and ARL9 shRNA (m) Lentiviral Particles: sc-105089-V.

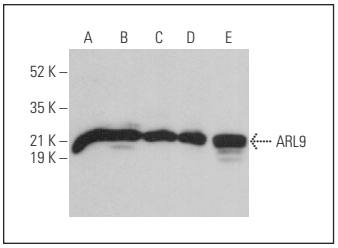
Molecular Weight of ARL9: 21 kDa.

Positive Controls: F9 cell lysate: sc-2245, c4 whole cell lysate: sc-364186 or rat liver extract: sc-2395.

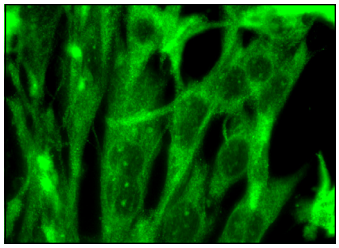
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ARL9 (G-10): sc-393264. Western blot analysis of ARL9 expression in F9 (**A**) and c4 (**B**) whole cell lysates and human testis (**C**), rat testis (**D**) and rat liver (**E**) tissue extracts.



ARL9 (G-10): sc-393264. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

STORAGE

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