SANTA CRUZ BIOTECHNOLOGY, INC.

ARL4D (H-53): sc-98645

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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 activating phospholipase D. ARL4D (ADP-ribosylation factor-like 4D), also known as ARL6 or ARF4L, is a 201 amino acid nuclear protein that is a member of the ADP-ribosylation factor family of GTP-binding proteins. ARL4D may play a role in membrane-associated intracellular trafficking and may promote ARF6 activation and modulate Actin remodeling by regulating ARNO. It is suggested that mutations of ARL4D is associated with Bardet-Biedl syndrome.

REFERENCES

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2. Katayama, T., et al. 1998. Expression of an ADP-ribosylation factor like gene, ARF4L, is induced after transient forebrain ischemia in the gerbil. Brain Res. Mol. Brain Res. 56: 66-75.
3. Lin, C.Y., et al. 2000. ARL4, an ARF-like protein that is developmentally regulated and localized to nuclei and nucleoli. J. Biol. Chem. 275: 37815-37823.
4. Nonaka, Y., et al. 2002. Recognition of ADP-ribosylation factor 4-like by HLA-A2-restricted and tumor-reactive cytotoxic T lymphocytes from patients with brain tumors. Tissue Antigens 60: 319-327.
5. Katayama, T., et al. 2004. Role of ARF4L in recycling between endosomes and the plasma membrane. Cell. Mol. Neurobiol. 24: 137-147.
6. Hofmann, I., et al. 2007. The ARL4 family of small G proteins can recruit the cytohesin ARF6 exchange factors to the plasma membrane. Curr. Biol. 17: 711-716.
7. Li, C.C., et al. 2007. ARL4D recruits cytohesin-2/ARNO to modulate Actin remodeling. Mol. Biol. Cell 18: 4420-4437.
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CHROMOSOMAL LOCATION

Genetic locus: ARL4D (human) mapping to 17q21.31; Arl4d (mouse) mapping to 11 D.

SOURCE

ARL4D (H-53) is a rabbit polyclonal antibody raised against amino acids 135-187 mapping near the C-terminus of ARL4D 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.

RESEARCH USE

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

APPLICATIONS

ARL4D (H-53) is recommended for detection of ARL4D of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

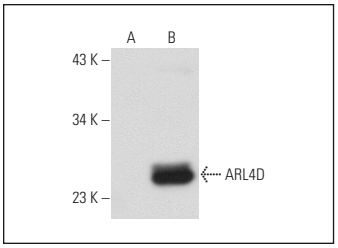
ARL4D (H-53) is also recommended for detection of ARL4D in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ARL4D siRNA (h): sc-94138, ARL4D siRNA (m): sc-141243, ARL4D shRNA Plasmid (h): sc-94138-SH, ARL4D shRNA Plasmid (m): sc-141243-SH, ARL4D shRNA (h) Lentiviral Particles: sc-94138-V and ARL4D shRNA (m) Lentiviral Particles: sc-141243-V.

Molecular Weight of ARL4D: 20 kDa.

Positive Controls: T-47D cell lysate: sc-2293, Y79 cell lysate: sc-2240 or ARL4D (m): 293T Lysate: sc-124995.

DATA



ARL4D (H-53): sc-98645. Western blot analysis of ARL4D expression in non-transfected: sc-117752 (**A**) and mouse ARL4D transfected: sc-124995 (**B**) 293T whole cell lysates.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **ARL4D (F-2): sc-271273** or **ARL4D (H-2): sc-271274**, our highly recommended monoclonal alternatives to ARL4D (H-53).