

ARL4D (H-2): sc-271274

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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- 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.
- 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.
- 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.
- Katayama, T., et al. 2004. Role of ARF4L in recycling between endosomes and the plasma membrane. *Cell. Mol. Neurobiol.* 24: 137-147.
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- Li, C.C., et al. 2007. ARL4D recruits cytohesin-2/ARNO to modulate Actin remodeling. *Mol. Biol. Cell* 18: 4420-4437.
- Alme, M.N., et al. 2007. Chronic fluoxetine treatment induces brain region-specific upregulation of genes associated with BDNF-induced long-term potentiation. *Neural Plast.* 2007: 26496.

CHROMOSOMAL LOCATION

Genetic locus: ARL4D (human) mapping to 17q21.31; ARL4d (mouse) mapping to 11 D.

SOURCE

ARL4D (H-2) is a mouse monoclonal antibody raised against amino acids 135-187 mapping near the C-terminus of ARL4D of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ARL4D (H-2) is recommended for detection of ARL4D 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 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.

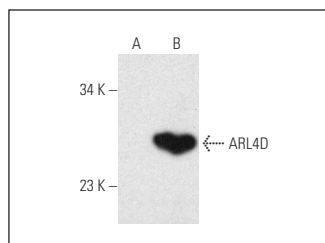
Molecular Weight of ARL4D: 20 kDa.

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

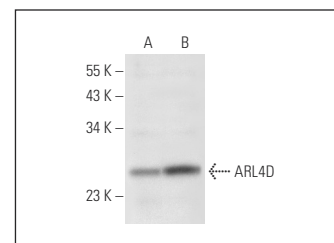
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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



ARL4D (H-2): sc-271274. Western blot analysis of ARL4D expression in non-transfected: sc-117752 (A) and mouse ARL4D transfected: sc-124995 (B) 293T whole cell lysates.



ARL4D (H-2): sc-271274. Western blot analysis of ARL4D expression in T-47D (A) and Y79 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Sato, T., et al. 2020. Lin28a/let-7 pathway modulates the Hox code via Polycomb regulation during axial patterning in vertebrates. *Elife* 9: e53608.

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.