

ARL4D (m): 293T Lysate: sc-124995

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

- Smith, S.A., et al. 1995. Isolation and mapping of a gene encoding a novel human ADP-ribosylation factor on chromosome 17q12-q21. *Genomics* 28: 113-115.
- 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.
- 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.
- 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* (mouse) mapping to 11 D.

PRODUCT

ARL4D (m): 293T Lysate represents a lysate of mouse ARL4D transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

ARL4D (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ARL4D antibodies. Recommended use: 10-20 µl per lane.

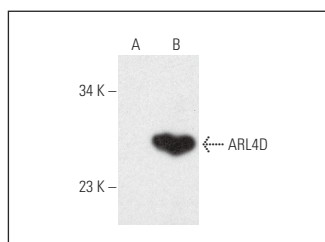
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ARL4D (H-2): sc-271274 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ARL4D expression in ARL4D transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

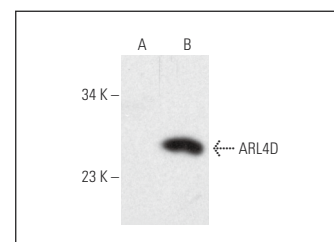
RECOMMENDED SUPPORT REAGENTS

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.

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 (F-2): sc-271273. Western blot analysis of ARL4D expression in non-transfected: sc-117752 (A) and mouse ARL4D transfected: sc-124995 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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