

ARL8A/B (F-5): sc-398679

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 they play an essential role in the activation of phospholipase D (PC-PLD). ARL8B (ADP-ribosylation factor-like protein 8B), also known as ARL10C or GIE1, is a 186 amino acid protein that localizes to the late endosome membrane and belongs to the ARL family of ARF-like GTPase proteins. Expressed ubiquitously, ARL8A interacts with Tubulin and is thought to play a role in lysosome motility, as well as in chromosomal segregation. The gene encoding ARL8B maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Secombe, J. and Parkhurst, S.M. 2004. *Drosophila* Topors is a RING finger-containing protein that functions as a ubiquitin-protein isopeptide ligase for the hairy basic helix-loop-helix repressor protein. *J. Biol. Chem.* 279: 17126-17133.
2. 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.
3. Burd, C.G., et al. 2004. ARF-like GTPases: not so ARF-like after all. *Trends Cell Biol.* 14: 687-694.
4. Kahn, R.A., et al. 2005. ARF family GTPases: roles in membrane traffic and microtubule dynamics. *Biochem. Soc. Trans.* 33: 1269-1272.
5. Bagshaw, R.D., et al. 2006. The ARF-family protein, ARL8B, is involved in the spatial distribution of lysosomes. *Biochem. Biophys. Res. Commun.* 344: 1186-1191.
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.

CHROMOSOMAL LOCATION

Genetic locus: ARL8A (human) mapping to 1q32.1, ARL8B (human) mapping to 3p26.1; ARL8a (mouse) mapping to 1 E4, ARL8b (mouse) mapping to 6 E2.

SOURCE

ARL8A/B (F-5) is a mouse monoclonal antibody raised against amino acids 121-186 mapping at the C-terminus of ARL8B of human origin.

PRODUCT

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

APPLICATIONS

ARL8A/B (F-5) is recommended for detection of ARL8A and ARL8B 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).

Molecular Weight of ARL8A: 21 kDa.

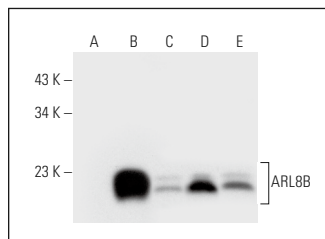
Molecular Weight of ARL8B: 22 kDa.

Positive Controls: ARL8B (h): 293T Lysate: sc-113826, K-562 whole cell lysate: sc-2203 or A-431 whole cell lysate: sc-2201.

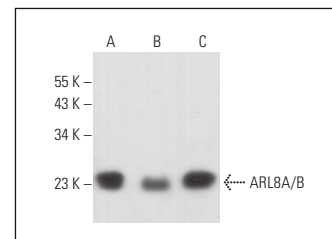
RECOMMENDED SUPPORT REAGENTS

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



ARL8A/B (F-5): sc-398679. Western blot analysis of ARL8B expression in non-transfected 293T: sc-117752 (A), human ARL8B transfected 293T: sc-113826 (B), A-431 (C), K-562 (D) and A-375 (E) whole cell lysates.



ARL8A/B (F-5): sc-398679. Western blot analysis of ARL8A/B expression in Neuro-2A (A), PC-12 (B) and KNRK (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Bley, H., et al. 2024. Proximity labeling of host factor ANXA3 in HCV infection reveals a novel LARP1 function in viral entry. *J. Biol. Chem.* 300: 107286.

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.