

ARL8A/B (D-18): sc-99272

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

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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.

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 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARL8B 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.

Blocking peptide available for competition studies, sc-99272 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ARL8A/B (D-18) is recommended for detection of ARL8A and ARL8B 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).

ARL8A/B (D-18) is also recommended for detection of ARL8A and ARL8B in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of ARL8A: 21 kDa.

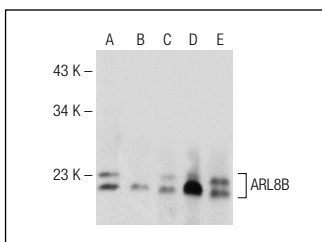
Molecular Weight of ARL8B: 22 kDa.

Positive Controls: ARL8B (h): 293T Lysate: sc-113826, K-562 whole cell lysate: sc-2203 or mouse brain extract: sc-2253.

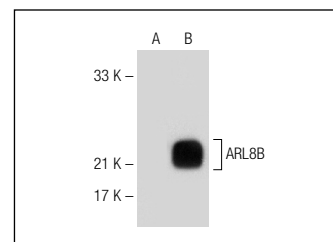
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ARL8A/B (D-18): sc-99272. Western blot analysis of ARL8B expression in PC-12 (A), NIH/3T3 (B), A-431 (C) and K-562 (D) whole cell lysates and mouse brain tissue extract (E).



ARL8A/B (D-18): sc-99272. Western blot analysis of ARL8B expression in non-transfected: sc-117752 (A) and human ARL8B transfected: sc-113826 (B) 293T whole cell lysates.

RESEARCH USE

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

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Try **ARL8A/B (H-8): sc-398635** or **ARL8A/B (F-5): sc-398679**, our highly recommended monoclonal alternatives to ARL8A/B (D-18).