

ARL5B (E-24): sc-130694

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). ARL5B (ADP-ribosylation factor-like protein 5B), also known as ARL8, is a 179 amino acid protein that belongs to the RAS superfamily of regulatory GTPases. Human ARL5B shares 100% identity with mouse Arl5b and 71% identity with the *Drosophila* homolog. Expressed in brain, heart, lung, cartilage and kidney, but not in spleen, ARL5B is most related to ARL5, with which it shares 80% protein sequence identity. Two isoforms of ARL5B exist as a result of alternative splicing events.

REFERENCES

1. Pasqualato, S., et al. 2002. ARF, ARL, ARP and SAR proteins: a family of GTP-binding proteins with a structural device for 'front-back' communication. *EMBO Rep.* 3: 1035-1041.
2. Sebald, E., et al. 2003. Isolation of a new member of the ADP-ribosylation like factor gene family, ARL8, from a cartilage cDNA library. *Gene* 311: 147-151.
3. Okai, T., et al. 2004. Novel small GTPase subfamily capable of associating with Tubulin is required for chromosome segregation. *J. Cell Sci.* 117 (Pt. 20): 4705-4715.
4. Burd, C.G., et al. 2004. ARF-like GTPases: not so ARF-like after all. *Trends Cell Biol.* 14: 687-694.
5. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608909. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Kahn, R.A., et al. 2005. ARF family GTPases: roles in membrane traffic and microtubule dynamics. *Biochem. Soc. Trans.* 33: 1269-1272.
7. Haraguchi, T., et al. 2006. Expression of ADP-ribosylation factor-like protein 8B mRNA in the brain is downregulated in mice fed a high-fat diet. *Biosci. Biotechnol. Biochem.* 70: 1798-1802.
8. 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.
9. Hofmann, I., et al. 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: ARL5B (human) mapping to 10p12.31.

SOURCE

ARL5B (E-24) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of ARL5B of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

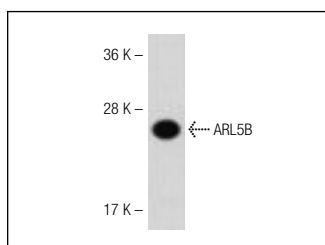
ARL5B (E-24) is recommended for detection of ARL5B of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 ARL5B siRNA (h): sc-90426, ARL5B shRNA Plasmid (h): sc-90426-SH and ARL5B shRNA (h) Lentiviral Particles: sc-90426-V.

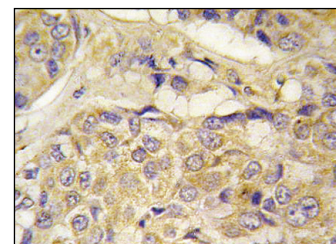
Molecular Weight of ARL5B: 20 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

DATA



ARL5B (E-24): sc-130694. Western blot analysis of ARL5B expression in HL-60 whole cell lysate.



ARL5B (E-24): sc-130694. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic localization.

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 **ARL5B (E-3): sc-393511** or **ARL5A/5B/5C (D-7): sc-390269**, our highly recommended monoclonal alternatives to ARL5B (E-24).