

ARL5A (E-11): sc-107426

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). ARL5 (ADP-ribosylation factor-like protein 5), also known as ARFLP5 or ARL5A, is a 179 amino acid member of the ARF protein family. Unlike many ARF family members, ARL5 is thought to lack ADP-ribosylation enhancing activity. Localized to the nucleus, ARL5A has been found to interact with HP1 α , indicating that it is developmentally regulated and has a possible role in nuclear dynamics and embryonic development signaling cascades.

REFERENCES

1. Pasqualato, S., Renault, L. and Cherfils, J. 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., Krueger, R., King, L.M., Cohn, D.H. and Krakow, D. 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. Burd, C.G., Strohlic, T.I. and Gangi Setty, S.R. 2004. ARF-like GTPases: not so ARF-like after all. *Trends Cell Biol.* 14: 687-694.
4. 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/>
5. Kahn, R.A., Volpicelli-Daley, L., Bowzard, B., Shrivastava-Ranjan, P., Li, Y., Zhou, C. and Cunningham, L. 2005. ARF family GTPases: roles in membrane traffic and microtubule dynamics. *Biochem. Soc. Trans.* 33: 1269-1272.
6. Haraguchi, T., Yanaka, N., Nogusa, Y., Sumiyoshi, N., Eguchi, Y. and Kato, N. 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., Cherfils, J., Elias, M., Lovering, R.C., Munro, S. and Schurmann, A. 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.
9. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 608960. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: ARL5A (human) mapping to 2q23.3; ARL5a (mouse) mapping to 2 C1.1.

SOURCE

ARL5A (E-11) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARL5A of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107426 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARL5A (E-11) is recommended for detection of ARL5A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

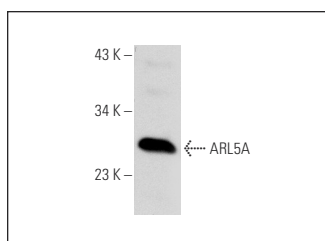
Suitable for use as control antibody for ARL5A siRNA (h): sc-94309, ARL5A siRNA (m): sc-141244, ARL5A shRNA Plasmid (h): sc-94309-SH, ARL5A shRNA Plasmid (m): sc-141244-SH, ARL5A shRNA (h) Lentiviral Particles: sc-94309-V and ARL5A shRNA (m) Lentiviral Particles: sc-141244-V.

Molecular Weight (predicted) of ARL5A: 21 kDa.

Molecular Weight (observed) of ARL5A: 27 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

DATA



ARL5A (E-11): sc-107426. Western blot analysis of ARL5A expression in K-562 whole cell lysate.

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.

MONOS
Satisfaction
Guaranteed

Try **ARL5A (G-9): sc-514680** or **ARL5A/5B/5C (D-7): sc-390269**, our highly recommended monoclonal alternatives to ARL5A (E-11).