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ARL2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2305a

Product Information

Application	WB, E
Primary Accession	P36404
Other Accession	Q9D0J4, Q2TA37, NP_001658
Reactivity	Human
Predicted	Mouse, Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB4908
Calculated MW	20878
Antigen Region	1-30

Additional Information

Gene ID	402
Other Names	ADP-ribosylation factor-like protein 2, ARL2
Target/Specificity	This ARL2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human ARL2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ARL2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ARL2
Function	Small GTP-binding protein which cycles between an inactive GDP-bound and an active GTP-bound form, and the rate of cycling is regulated by guanine nucleotide exchange factors (GEF) and GTPase- activating proteins (GAP).

GTP-binding protein that does not act as an allosteric activator of the cholera toxin catalytic subunit. Regulates formation of new microtubules and centrosome integrity. Prevents the TBCD-induced microtubule destruction. Participates in association with TBCD, in the disassembly of the apical junction complexes. Antagonizes the effect of TBCD on epithelial cell detachment and tight and adherens junctions disassembly. Together with ARL2, plays a role in the nuclear translocation, retention and transcriptional activity of STAT3. Component of a regulated secretory pathway involved in Ca(2+)-dependent release of acetylcholine. Required for normal progress through the cell cycle (PubMed:10831612, PubMed:16525022, PubMed:18234692, PubMed:18588884, PubMed:20740604). Also regulates mitochondrial integrity and function (PubMed:30945270).

Cellular Location

Mitochondrion intermembrane space. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus. Cytoplasm. Note=The complex formed with ARL2BP, ARL2 and SLC25A6 is expressed in mitochondria. The complex formed with ARL2BP, ARL2 and SLC25A4 is expressed in mitochondria (By similarity). Not detected in the Golgi, nucleus and on the mitotic spindle. Centrosome-associated throughout the cell cycle Not detected to interphase microtubules {ECO:0000250|UniProtKB:O08697}

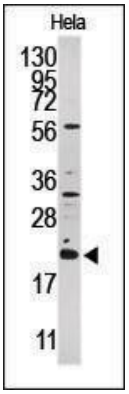
Background

ADP-ribosylation factors (ARFs) regulate intracellular vesicular membrane trafficking and stimulate a phospholipase D isoform. ARL (ADP-ribosylation like factor) proteins are very similar in sequence to ARFs. ARFs and ARF-like (ARL) proteins, which share sequence similarity with ARFs, form a subfamily of the Ras-related GTPase superfamily. ARL2 encodes a ubiquitiously expressed 184-amino acid predicted protein that is 76% identical to ARF1 and 40 to 45% identical to the Drosophila ARL proteins. Recombinant ARL2 binds to GTP rapidly but guanine nucleotide exchange does not require phospholipids, which is a characteristic of the ARF proteins.

References

Antoshechkin, I., et al., Dev. Cell 2(5):579-591 (2002).
Bhamidipati, A., et al., J. Cell Biol. 149(5):1087-1096 (2000).
Clark, J., et al., Proc. Natl. Acad. Sci. U.S.A. 90(19):8952-8956 (1993).

Images



Western blot analysis of anti-ARL2 Pab (Cat. #AP2305a) in Hela cell line lysate (35ug/lane). ARL2(arrow) was detected using the purified Pab.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.