10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ARL6 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2309a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9H0F7
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	21097
Antigen Region	1-30

Additional Information

Gene ID	84100
Other Names	ADP-ribosylation factor-like protein 6, Bardet-Biedl syndrome 3 protein, ARL6, BBS3
Target/Specificity	This ARL6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human ARL6.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	ARL6 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ARL6
Synonyms	BBS3
Function	Involved in membrane protein trafficking at the base of the ciliary organelle. Mediates recruitment onto plasma membrane of the BBSome complex which

would constitute a coat complex required for sorting of specific membrane proteins to the primary cilia (PubMed:20603001). Together with BBS1, is necessary for correct trafficking of PKD1 to primary cilia (By similarity). Together with the BBSome complex and LTZL1, controls SMO ciliary trafficking and contributes to the sonic hedgehog (SHH) pathway regulation (PubMed:22072986). May regulate cilia assembly and disassembly and subsequent ciliary signaling events such as the Wnt signaling cascade (PubMed:20207729). Isoform 2 may be required for proper retinal function and organization (By similarity).

Cellular Location

Cell projection, cilium membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, cytoskeleton, cilium axoneme. Cytoplasm, cytoskeleton, cilium basal body. Note=Appears in a pattern of punctae flanking the microtubule axoneme that likely correspond to small membrane-associated patches. Localizes to the so- called ciliary gate where vesicles carrying ciliary cargo fuse with the membrane

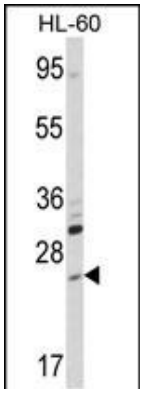
Background

ARL6 belongs to the ARF family of GTP-binding proteins. ARF proteins are important regulators of cellular traffic and are the founding members of an expanding family of homologous proteins and genomic sequences. They depart from other small GTP-binding proteins by a unique structural device that implements front-back communication from the N-terminus to the nucleotide-binding site. Studies of the mouse ortholog of this protein suggest an involvement in protein transport, membrane trafficking, or cell signaling during hematopoietic maturation. Alternative splicing occurs at this locus and two transcript variants encoding the same protein have been described.

References

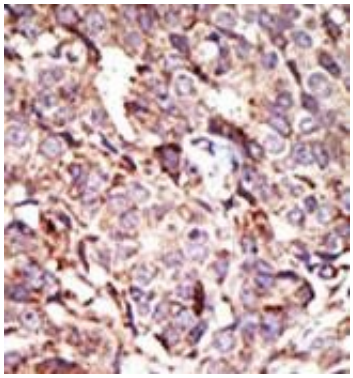
Pasqualato, S., et al., EMBO Rep. 3(11):1035-1041 (2002). Ingley, E., et al., FEBS Lett. 459(1):69-74 (1999). Jacobs, S., et al., FEBS Lett. 456(3):384-388 (1999).

Images



Western blot analysis of hARL6-M1 (Cat. #AP2309a) in HL-60 cell line lysates (35ug/lane). ARL6 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Citations

- Bardet-Biedl syndrome-associated small GTPase ARL6 (BBS3) functions at or near the ciliary gate and modulates Wnt signaling.

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