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ARL6 Rabbit pAb

Catalog # AP99820

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9H0F7
Other Accession	Q9H0F7
Reactivity	Human
Predicted	Rat, Mouse, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	21097
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ARL6
Epitope Specificity	31-120/186
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the small GTPase superfamily. Arf family.
SUBUNIT	Interacts with SEC61B, ARL6IP1, ARL6IP2, ARL6IP3, ARL6IP4 ARL6IP5 and ARL6IP6. Interacts (GTP-bound form) with the BBSome a complex that contains BBS1, BBS2, BBS4, BBS5, BBS7, BBS8, BBS9 and BBIP10.
DISEASE	Defects in ARL6 are a cause of Bardet-Biedl syndrome type 3 (BBS3) [MIM:209900]. Bardet-Biedl syndrome (BBS) is a genetically heterogeneous disorder characterized by usually severe pigmentary retinopathy, early onset obesity, polydactyly, hypogenitalism, renal malformation and mental retardation. Secondary features include diabetes mellitus, hypertension and congenital heart disease. Defects in ARL6 are the cause of retinitis pigmentosa type 55 (RP55) [MIM:613575]. RP55 is a retinal dystrophy belonging to the group of pigmentary retinopathies. Retinitis pigmentosa is characterized by retinal pigment deposits visible on fundus examination and primary loss of rod photoreceptor cells followed by secondary loss of cone photoreceptors. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene 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. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	84100
Other Names	BBS3; RP55; ARL6_HUMAN; ARL6; Bardet-Biedl syndrome 3 protein; ARF like GTPase 6; ADP-ribosylation factor-like 6; ADP ribosylation factor like GTPase 6
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

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