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ARL3 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP2306b

Specification

ARL3 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	P36405
Other Accession	NP_004302

ARL3 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 403

Other Names
ADP-ribosylation factor-like protein 3, ARL3, ARFL3

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2306b was selected from the C-term region of human ARL3 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ARL3 Antibody (C-term) Blocking Peptide - Protein Information

Name ARL3

Synonyms ARFL3

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) (PubMed:16525022, PubMed:18588884). Required for normal cytokinesis and cilia signaling (PubMed:22085962). Requires assistance from GTPase-activating proteins (GAPs) like RP2 and PDE6D, in order to cycle between inactive GDP-bound and active GTP-bound forms. Required for targeting proteins to the cilium, including myristoylated NPHP3 and prenylated INPP5E (PubMed:<a

href="http://www.uniprot.org/citations/30269812" target="_blank">30269812). Targets NPHP3 to the ciliary membrane by releasing myristoylated NPHP3 from UNC119B cargo adapter into the cilium (PubMed:22085962). Required for PKD1:PKD2 complex targeting from the trans-Golgi network to the cilium (By similarity).

Cellular Location
Golgi apparatus membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, cytoskeleton, spindle. Nucleus Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Cytoplasm. Cell projection, cilium Note=Detected predominantly in the photoreceptor connecting cilium Present on the mitotic spindle. Centrosome-associated throughout the cell cycle. Not detected to interphase microtubules

Tissue Location
Expressed in the retina. Strongly expressed in connecting cilium, the myoid region of the inner segments (IS) and in cone photoreceptors (at protein level).

ARL3 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ARL3 Antibody (C-term) Blocking Peptide - Images

ARL3 Antibody (C-term) Blocking Peptide - Background

ADP-ribosylation factors (ARFs) are low molecular weight GTP-binding proteins belonging to the RAS superfamily. The predicted 182-amino acid ARL3 (ADP-ribosylation like factor) protein shares 97% amino acid identity with rat ARLl3 and 43% identity with human ARF1. Like the ARFs, ARL3 has a glycine at position 2, the site of N myristoylation, and lacks cysteine residues near the C terminus, which are found in other members of the RAS family. Northern blot analysis detected a 1-kb ARL3 transcript in all tissues tested, with highest expression in heart and lung, and lower expression in brain, liver, kidney, ovary, and testis. A 5.5-kb transcript was also detected in most tissues, with highest expression in brain. Immunoblot analysis detected ARL3 in human tumor cell lines but not in normal rodent cells. Although ARL3 binds GTP, it is devoid of activity in the cholera toxin-dependent ADP-ribosylation of Gs, and is therefore classified as an ARF-like protein.

ARL3 Antibody (C-term) Blocking Peptide - References

Cavenagh, M.M., et al., J. Biol. Chem. 269(29):18937-18942 (1994).Adams, M.D., et al., Nature 377 (6547 Suppl), 3-174 (1995).Kim, H.S., Cytogenet. Cell Genet. 83 (3-4), 246 (1998).Wistow, G., et al., Mol. Vis. 8, 196-204 (2002).