

PKD1 (aa2281-2292) Antibody (C-Term) Peptide-affinity purified goat antibody Catalog # AF3578a

Specification

PKD1 (aa2281-2292) Antibody (C-Term) - Product Information

Application Primary Accession Other Accession

Predicted Host Clonality Concentration Isotype Calculated MW E <u>P98161</u> <u>NP_001009944.2</u>, <u>NP_000287.3</u>, <u>5310</u>, <u>18763</u> (mouse), <u>24650 (rat)</u> Human, Mouse, Rat, Pig, Dog Goat Polyclonal 0.5 mg/ml IgG 462529

PKD1 (aa2281-2292) Antibody (C-Term) - Additional Information

Gene ID 5310

Other Names Polycystin-1, Autosomal dominant polycystic kidney disease 1 protein, PKD1

Dilution E~~N/A

Format 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions PKD1 (aa2281-2292) Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

PKD1 (aa2281-2292) Antibody (C-Term) - Protein Information

Name PKD1 (HGNC:9008)

Function

Component of a heteromeric calcium-permeable ion channel formed by PKD1 and PKD2 that is activated by interaction between PKD1 and a Wnt family member, such as WNT3A and WNT9B (PubMed:27214281). Both PKD1 and PKD2 are required for channel activity (PubMed:<a



href="http://www.uniprot.org/citations/27214281" target="_blank">27214281). Involved in renal tubulogenesis (PubMed:12482949). Involved in fluid- flow mechanosensation by the primary cilium in renal epithelium (By similarity). Acts as a regulator of cilium length, together with PKD2 (By similarity). The dynamic control of cilium length is essential in the regulation of mechanotransductive signaling (By similarity). The cilium length response creates a negative feedback loop whereby fluid shear-mediated deflection of the primary cilium, which decreases intracellular cAMP, leads to cilium shortening and thus decreases flow- induced signaling (By similarity). May be an ion-channel regulator. Involved in adhesive protein-protein and protein-carbohydrate interactions. Likely to be involved with polycystin-1-interacting protein 1 in the detection, sequestration and exocytosis of senescent mitochondria (PubMed:37681898).

Cellular Location

Cell membrane; Multi-pass membrane protein. Cell projection, cilium

{ECO:0000250|UniProtKB:008852}. Endoplasmic reticulum {ECO:0000250|UniProtKB:008852}. Golgi apparatus {ECO:0000250|UniProtKB:008852}. Vesicle Secreted, extracellular exosome Note=PKD1 localization to the plasma and ciliary membranes requires PKD2, is independent of PKD2 channel activity, and involves stimulation of PKD1 autoproteolytic cleavage at the GPS region of the GAIN-B domain. PKD1:PKD2 interaction is required to reach the Golgi apparatus from endoplasmic reticulum and then traffic to the cilia (By similarity). Ciliary localization of PKD1 requires BBS1 and ARL6/BBS3 (By similarity). Cell surface localization requires GANAB (PubMed:27259053). Detected on migrasomes and on extracellular exosomes in urine (PubMed:37681898). {ECO:0000250|UniProtKB:008852, ECO:0000269|PubMed:27259053, ECO:0000269|PubMed:37681898}

PKD1 (aa2281-2292) Antibody (C-Term) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

PKD1 (aa2281-2292) Antibody (C-Term) - Images

PKD1 (aa2281-2292) Antibody (C-Term) - Background

This antibody is expected to recognize both reported isoforms (NP_001009944.2; NP_000287.3).

PKD1 (aa2281-2292) Antibody (C-Term) - References

Endothelial cells from humans and mice with polycystic kidney disease are characterized by polyploidy and chromosome segregation defects through survivin down-regulation. AbouAlaiwi WA, Ratnam S, Booth RL, Shah JV, Nauli SM. Hum Mol Genet. 2011 Jan 15;20(2):354-67. PMID: 21041232