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

Peptide-affinity purified goat antibody
Catalog # AF3578a

Specification

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

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

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

Gene ID 5310

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

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: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:O08852}. Endoplasmic reticulum {ECO:0000250|UniProtKB:O08852}. Golgi apparatus {ECO:0000250|UniProtKB:O08852}. 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 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:O08852, 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.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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