ARG40884
anti-PKD2 / Polycystin 2 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PKD2 / Polycystin 2
Tested Reactivity	Hu, Ms, Rat
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PKD2 / Polycystin 2
Species	Human
Immunogen	Recombinant full length protein of Human Polycystin 2.
Conjugation	Un-conjugated
Alternate Names	Polycystwin; APKD2; Autosomal dominant polycystic kidney disease type II protein; PC2; Pc-2; Polycystic kidney disease 2 protein; R48321; TRPP2; Polycystin-2; PKD4; Transient receptor potential cation channel subfamily P member 2

Application Instructions

Application table

Application	Dilution
WB	1:500 - 1:2000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size: 110 kDa

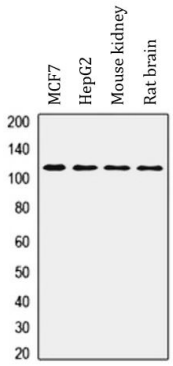
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.42% Potassium phosphate (pH 7.3), 0.87% NaCl, 0.01% Sodium azide and 30% Glycerol.
Preservative	0.01% Sodium azide
Stabilizer	30% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	PKD2
Gene Full Name	polycystic kidney disease 2 (autosomal dominant)
Background	This gene encodes a member of the polycystin protein family. The encoded protein is a multi-pass membrane protein that functions as a calcium permeable cation channel, and is involved in calcium transport and calcium signaling in renal epithelial cells. This protein interacts with polycystin 1, and they may be partners in a common signaling cascade involved in tubular morphogenesis. Mutations in this gene are associated with autosomal dominant polycystic kidney disease type 2. [provided by RefSeq, Mar 2011]
Function	Functions as a calcium permeable cation channel involved in fluid-flow mechanosensation by the primary cilium in renal epithelium. Together with TRPV4, forms mechano- and thermosensitive channels in cilium. PKD1 and PKD2 may function through a common signaling pathway that is necessary for normal tubulogenesis. Acts as a regulator of cilium length, together with PKD1. The dynamic control of cilium length is essential in the regulation of mechanotransductive signaling. 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. Also involved in left/right axis specification downstream of nodal flow: forms a complex with PKD1L1 in cilia to facilitate flow detection in left/right patterning (By similarity). [UniProt]
Calculated Mw	110 kDa
PTM	Phosphorylated. Phosphorylation is important for protein function; a mutant that lacks the N-terminal phosphorylation sites cannot complement a zebrafish pkd2-deficient mutant (PubMed:16551655). PKD-mediated phosphorylation at the C-terminus regulates its function in the release of Ca(2+) stores from the endoplasmic reticulum (PubMed:20881056). PKA-mediated phosphorylation at a C-terminal site strongly increases the open probability of the channel, but does not increase single channel conductance (PubMed:26269590). N-glycosylated. The four subunits in a tetramer probably differ in the extent of glycosylation; simultaneous glycosylation of all experimentally validated sites would probably create steric hindrance. Thus, glycosylation at Asn-305 is not compatible with glycosylation at Asn-328; only one of these two residues is glycosylated at a given time. [UniProt]
Cellular Localization	Cell projection, cilium membrane. Endoplasmic reticulum membrane. Cell membrane. Basolateral cell membrane. Cytoplasmic vesicle membrane. Note=Retained in the endoplasmic reticulum by interaction with PACS1 and PACS2 (PubMed:15692563). Detected on kidney tubule basolateral membranes and basal cytoplasmic vesicles (PubMed:10770959). Cell surface and cilium localization requires GANAB (PubMed:27259053). [UniProt]

Images



ARG40884 anti-PKD2 / Polycystin 2 antibody WB image

Western blot: MCF7, HepG2, Mouse kidney and Rat brain lysates stained with ARG40884 anti-PKD2 / Polycystin 2 antibody.