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PKD2L1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16416a

Product Information

Application	WB, E
Primary Accession	Q9P0L9
Other Accession	NP_057196.2
Reactivity	Human
Predicted	Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35841
Calculated MW	91982
Antigen Region	37-65

Additional Information

Gene ID	9033
Other Names	Polycystic kidney disease 2-like 1 protein, Polycystin-2 homolog, Polycystin-2L1, Polycystin-L, Polycystin-L1, PKD2L1, PKD2L, PKDL, TRPP3
Target/Specificity	This PKD2L1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 37-65 amino acids from the N-terminal region of human PKD2L1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PKD2L1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PKD2L1 (HGNC:9011)
Function	Homotetrameric, non-selective cation channel that is permeable to sodium, potassium, magnesium and calcium (PubMed:10517637, PubMed:11959145,

	PubMed:25820328, PubMed:27754867, PubMed:29425510, PubMed:30004384). Also forms functional heteromeric channels with PKD1, PKD1L1 and PKD1L3 (PubMed:23212381, PubMed:24336289). Pore-forming subunit of a heterotetrameric, non-selective cation channel, formed by PKD1L2 and PKD1L3, that is permeable to sodium, potassium, magnesium and calcium and which may act as a sour taste receptor in gustatory cells; however, its contribution to sour taste perception is unclear in vivo and may be indirect (PubMed:19812697, PubMed:23212381). The homomeric and heteromeric channels formed by PKD1L2 and PKD1L3 are activated by low pH and Ca(2+), but opens only when the extracellular pH rises again and after the removal of acid stimulus (PubMed:23212381). Pore-forming subunit of a calcium-permeant ion channel formed by PKD1L2 and PKD1L1 in primary cilia, where it controls cilium calcium concentration, without affecting cytoplasmic calcium concentration, and regulates sonic hedgehog/SHH signaling and GLI2 transcription (PubMed:24336289). The PKD1L1:PKD2L1 complex channel is mechanosensitive only at high pressures and is highly temperature sensitive (PubMed:24336289). Pore-forming subunit of a calcium-permeant ion channel formed by PKD1L2 and PKD1 that produces a transient increase in intracellular calcium concentration upon hypo-osmotic stimulation (200 mOsm) (By similarity). May play a role in the perception of carbonation taste (By similarity). May play a role in the sensory perception of water, via a mechanism that activates the channel in response to dilution of salivary bicarbonate and changes in salivary pH (By similarity).
Cellular Location	Cell projection, cilium membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle {ECO:0000250|UniProtKB:A2A259}. Note=Interaction with PKD1L3 is required for localization to the cell membrane (PubMed:23212381) Interaction with PKD1 is required for localization to the cell membrane (By similarity). {ECO:0000250|UniProtKB:A2A259, ECO:0000269|PubMed:23212381}
Tissue Location	Detected in taste bud cells in fungiform papillae (at protein level) (PubMed:19812697). Ubiquitous (PubMed:9748274) Expressed in adult heart, skeletal muscle, brain, spleen, testis, retina and liver (PubMed:9748274, PubMed:9878261). Isoform 4 appears to be expressed only in transformed lymphoblasts

Background

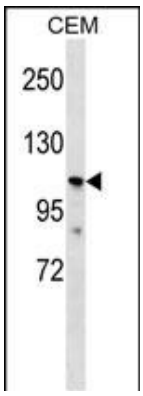
PKD2L1 is a member of the polycystin protein family. The encoded protein contains multiple transmembrane domains, and cytoplasmic N- and C-termini. The protein may be an integral membrane protein involved in cell-cell/matrix interactions. This protein functions as a calcium-regulated nonselective cation channel. Alternative splice variants have been described but their full length sequences have not been determined.

References

Molland, K.L., et al. Biochem. J. 429(1):171-183(2010)
Kawaguchi, H., et al. J. Biol. Chem. 285(23):17277-17281(2010)
Li, Q., et al. J. Neurochem. 103(6):2391-2400(2007)
Geng, L., et al. J. Cell. Sci. 119 (PT 7), 1383-1395 (2006) :
Grupe, A., et al. Am. J. Hum. Genet. 78(1):78-88(2006)

Images

PKD2L1 Antibody (N-term) (Cat. #AP16416a) western blot



analysis in CEM cell line lysates (35ug/lane).This demonstrates the PKD2L1 antibody detected the PKD2L1 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.