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Anti-Nephrocystin 1 Antibody

Catalog # AP51803

Product Information

Application	WB
Primary Accession	O15259
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	83299

Additional Information

Gene ID	4867
Other Names	NPH1; Nephrocystin-1; Juvenile nephronophthisis 1 protein
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Nephrocystin 1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

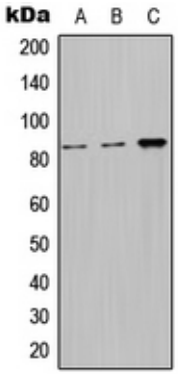
Name	NPHP1
Synonyms	NPH1
Function	Together with BCAR1 it may play a role in the control of epithelial cell polarity (By similarity). Involved in the organization of apical junctions in kidney cells together with NPHP4 and RPGRIP1L/NPHP8 (By similarity). Does not seem to be strictly required for ciliogenesis (By similarity). Seems to help to recruit PTK2B/PYK2 to cell matrix adhesions, thereby initiating phosphorylation of PTK2B/PYK2 and PTK2B/PYK2-dependent signaling (By similarity). May play a role in the regulation of intraflagellar transport (IFT) during cilia assembly. Required for normal retina development (By similarity). In connecting photoreceptor cilia influences the movement of some IFT proteins such as IFT88 and WDR19. Involved in spermatogenesis (By similarity).
Cellular Location	Cell junction {ECO:0000250|UniProtKB:Q9QY53}. Cell junction, adherens junction {ECO:0000250|UniProtKB:Q9QY53}. Cell projection, cilium.

	Cytoplasm, cytoskeleton, cilium axoneme. Cell junction, tight junction. Note=In the retinal photoreceptor cell layer, localizes at the connecting cilium (By similarity). Colocalizes with E-cadherin and BCAR1 at or near the cell-cell adherens junctions (By similarity). Localized to respiratory cilia axoneme (PubMed:16308564, PubMed:16885411). Localized to the transition zone of respiratory cilia (PubMed:16885411) Localized to the transition zone of photoreceptor-connecting cilia and renal monocilia (By similarity). In cultured renal cells, it localizes diffusely in the cytoplasm but, as cells approach confluence, it accumulates at basolateral tight junctions (By similarity) {ECO:0000250|UniProtKB:Q9QY53, ECO:0000269|PubMed:16308564, ECO:0000269|PubMed:16885411}
Tissue Location	Widespread expression, with highest levels in pituitary gland, spinal cord, thyroid gland, testis, skeletal muscle, lymph node and trachea. Weakly expressed in heart, kidney and pancreas Expressed in nasal epithelial cells (at protein level) (PubMed:16308564). Expressed in the renal collecting duct (at protein level) (PubMed:18477472).

References

Saunier S.,et al.Hum. Mol. Genet. 6:2317-2323(1997).
Hildebrandt F.,et al.Nat. Genet. 17:149-153(1997).
Hillier L.W.,et al.Nature 434:724-731(2005).
Caridi G.,et al.Am. J. Kidney Dis. 32:1059-1062(1998).
Mollet G.,et al.Nat. Genet. 32:300-305(2002).

Images



Western blot analysis of Nephrocystin 1 expression in HeLa (A), Raw264.7 (B), H9C2 (C) whole cell lysates. (Predicted band size: 69; 77; 83 kD; Observed band size: 83 kD)

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