

# Nephrocystin 1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51803

## Product Information

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Application	WB
Primary Accession	<a href="#">O15259</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	83299

## Additional Information

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Gene ID	4867
Other Names	Nephrocystin-1, Juvenile nephronophthisis 1 protein, NPHP1, NPH1
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

## Protein Information

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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).

## **Background**

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Together with BCAR1 it may play a role in the control of epithelial cell polarity. 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. May play a role in the regulation of intraflagellar transport (IFT) during cilia assembly. Required for normal retina development. In connecting photoreceptor cilia influences the movement of some IFT proteins such as IFT88 and WDR19. Involved in spermatogenesis (By similarity).

## **References**

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