

NPHP1 / Nephronophthisis Antibody
Rabbit Polyclonal Antibody
Catalog # ALS17155**Specification**

NPHP1 / Nephronophthisis Antibody - Product Information

Application	IHC-P
Primary Accession	O15259
Other Accession	4867
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	83299

NPHP1 / Nephronophthisis Antibody - Additional Information**Gene ID** 4867**Other Names**

NPHP1, JBTS4, Nephrocystin 1, Nephronophthisis, SLSN1, Nephrocystin-1, Nephronophthisis 1 (juvenile), NPH1

Target/Specificity

Human NPHP1 / Nephronophthisis

Reconstitution & Storage

PBS, pH 7.4, 0.03% Proclin 300, 50% glycerol. Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions

NPHP1 / Nephronophthisis Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NPHP1 / Nephronophthisis Antibody - 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

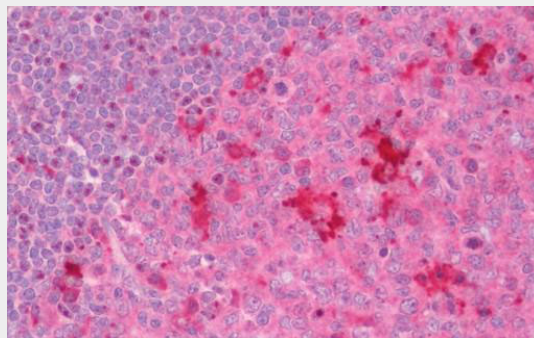
Widespread expression, with highest levels in pituitary gland, spinal cord, thyroid gland, testis, skeletal muscle, lymph node and trachea. Weakly expressed in heart, kidney and pancreas Expressed in nasal epithelial cells (at protein level) (PubMed:16308564). Expressed in the renal collecting duct (at protein level) (PubMed:18477472).

NPHP1 / Nephronophthisis Antibody - Protocols

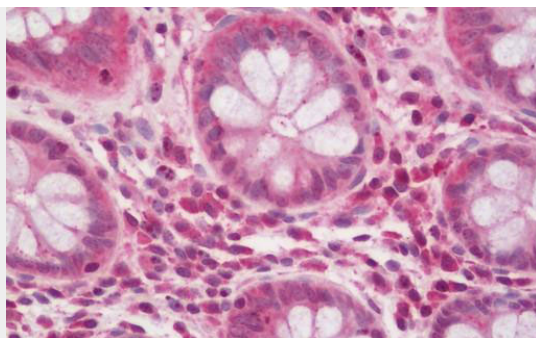
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

NPHP1 / Nephronophthisis Antibody - Images



Human Tonsil: Formalin-Fixed, Paraffin-Embedded (FFPE)



Human Colon: Formalin-Fixed, Paraffin-Embedded (FFPE)

NPHP1 / Nephronophthisis Antibody - Background

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).

NPHP1 / Nephronophthisis Antibody - References

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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).