abcam

ab204951

Anti-PKHD1 antibody [8G12A1]

Key facts

Isotype	IgG1
Host species	Rat
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Mouse Pkhd1l1 aa 3850 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link Q80ZA4
Clone number	8G12A1
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/200 - 1/400
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/200 - 1/1000
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/200 - 1/1000
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information PKHD1

Function	Promotes ciliogenesis in renal epithelial cells and therefore participates in the tubules formation and/ or ensures the maintenance of the architecture of the lumen of the kidney (By similarity). Has an impact on cellular symmetry by ensuring correct bipolar cell division through the regulation of centrosome duplication and mitotic spindle assembly and by maintaining oriented cell division (OCD) during tubular elongation through planar cell polarity (PCP) pathway (PubMed:20554582). During epithelial cell morphogenesis, it also regulates cell-cell and cell-matrix adhesion and participates in cell motility (By similarity). Promotes cell-cell contact through the positive regulation of PTK2 kinase activity leading to either positive regulation of epithelial cell proliferation through the HRAS/RAF1 pathways, or negative regulation of apoptosis through the PDK1/AKT1 pathway (By similarity). May act in collecting-duct and biliary differentiation (PubMed:11919560). May participate in the regulation of the cholangiocytes proliferation and the CCN2 production in an CXCL8-dependent manner (PubMed:30898581).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

This product was changed from ascites to supernatant. Lot no's high than GR291788-5 are from Tissue Culture Supernatant

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The PKHD1 gene encodes the polycystic kidney and hepatic disease 1 protein also referred to as fibrocystin/polyductin. This protein has a molecular mass of approximately 500 kDa. PKHD1 predominantly expresses in kidney and liver epithelial cells. In these tissues it localizes to the primary cilia and the plasma

	membrane. The structure of PKHD1 suggests it functions as a receptor or co-receptor involved in signal transduction.
Biological function summary	The PKHD1 protein plays a vital role in maintaining tubular and ductal architecture within the kidney and liver. It likely forms part of a complex allowing proper cellular communication and structural support. PKHD1 interacts with the cellular cytoskeleton suggesting a role in mechanosensation and cell proliferation. These functions contribute to normal tissue development and homeostasis in organs where it is expressed.
Pathways	PKHD1 plays a significant role in the Wnt signaling pathway and ciliary function. These pathways are important for regulating cell division polarity and organization. Within the Wnt signaling pathway PKHD1 interacts with proteins such as β-catenin influencing their stability and translocation. PKHD1's function in cilia suggests a link to cellular processes that depend on precise signal reception and transduction.
Associated diseases and disorders	Mutations in PKHD1 are related to autosomal recessive polycystic kidney disease (ARPKD) and congenital hepatic fibrosis. These conditions involve the disrupted function of the kidneys and liver characterized by cyst formation and fibrosis. PKHD1's interaction with fibrocystin/polyductin is key as defects in this pathway lead to the abnormalities observed in ARPKD. Another protein fibrocystin shares overlapping functions with PKHD1 in these pathological conditions further emphasizing its critical role in maintaining proper kidney and liver function.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

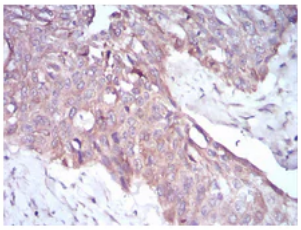
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:

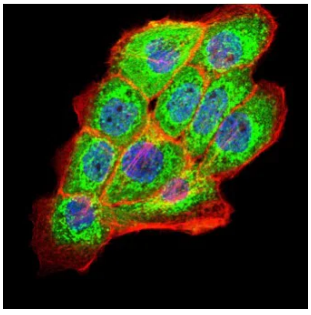
3 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKHD1 antibody [8G12A1] (ab204951)

PKHD1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rat Anti-PKHD1 antibody

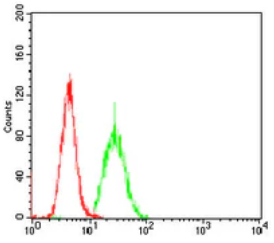
Immunohistochemical analysis of paraffin-embedded esophageal cancer tissue labeling PKHD1 with ab204951 at 1/200 dilution followed by DAB staining



Immunocytochemistry/ Immunofluorescence - Anti-PKHD1 antibody [8G12A1] (ab204951)

PKHD1 Immunocytochemistry/ Immunofluorescence staining using rat Anti-PKHD1 antibody

Immunofluorescent analysis of A431 cells labeling PKHD1 with ab204951 at 1/200 (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin.



Flow Cytometry - Anti-PKHD1 antibody [8G12A1] (ab204951)

PKHD1 Flow Cytometry staining using rat Anti-PKHD1 antibody

Flow cytometric analysis of HeLa cells labeling PKHD1 with ab204951 at 1/200 (green) or negative control (red)

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