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Rabbit Anti-Polycystin 2 antibody

SL2158R

Product Name:	Polycystin 2
Chinese Name:	多囊肾蛋白2抗体
Alias:	polycystic kidney disease 2; TRPP2; APKD2, C030034P18RIK, MGC138466, MGC138468, PC2, PKD2 (includes EG:5311), PKD4, POLYCISTIN-2, POLYCYSTIN 2, RGD1559992, TRPP2; Polycystic kidney disease 2 protein homolog; PC2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	106kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Polycystin 2:651-750/968
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene encodes a member of the polycystin protein family. The encoded protein is a multi-pass membrane protein that functions as a calcium permeable cation channel, and is involved in calcium transport and calcium signaling in renal epithelial cells. This protein interacts with polycystin 1, and they may be partners in a common signaling cascade involved in tubular morphogenesis. Mutations in this gene are associated with

autosomal dominant polycystic kidney disease type 2. [provided by RefSeq, Mar 2011].

Function:
Involved in fluid-flow mechanosensation by the primary cilium in renal epithelium. PKD1 and PKD2 may function through a common signaling pathway that is necessary for normal tubulogenesis. Acts as a regulator of cilium length, together with PKD1. The dynamic control of cilium length is essential in the regulation of mechanotransductive signaling. The cilium length response creates a negative feedback loop whereby fluid shear-mediated deflection of the primary cilium, which decreases intracellular cAMP, leads to cilium shortening and thus decreases flow-induced signaling. Functions as a calcium permeable cation channel.

Subunit:
Forms homooligomers. Isoform 1 interacts with PKD1 while isoform 3 does not. PKD1 requires the presence of PKD2 for stable expression. Interacts with CD2AP. Interacts with HAX1. Interacts with NEK8. Part of a complex containing AKAP5, ADCY5, ADCY6 and PDE4C.

Subcellular Location:
Membrane; Multi-pass membrane protein (Potential). Endoplasmic reticulum. Cell projection, cilium.

Tissue Specificity:
Strongly expressed in ovary, fetal and adult kidney, testis, and small intestine. Not detected in peripheral leukocytes.

DISEASE:
Polycystic kidney disease 2 (PKD2) [MIM:613095]: A disorder characterized by progressive formation and enlargement of cysts in both kidneys, typically leading to end-stage renal disease in adult life. Cysts also occurs in the liver and other organs. It represents approximately 15% of the cases of autosomal dominant polycystic kidney disease. PKD2 is clinically milder than PKD1 but it has a deleterious impact on overall life expectancy. Note=The disease is caused by mutations affecting the gene represented in this entry.

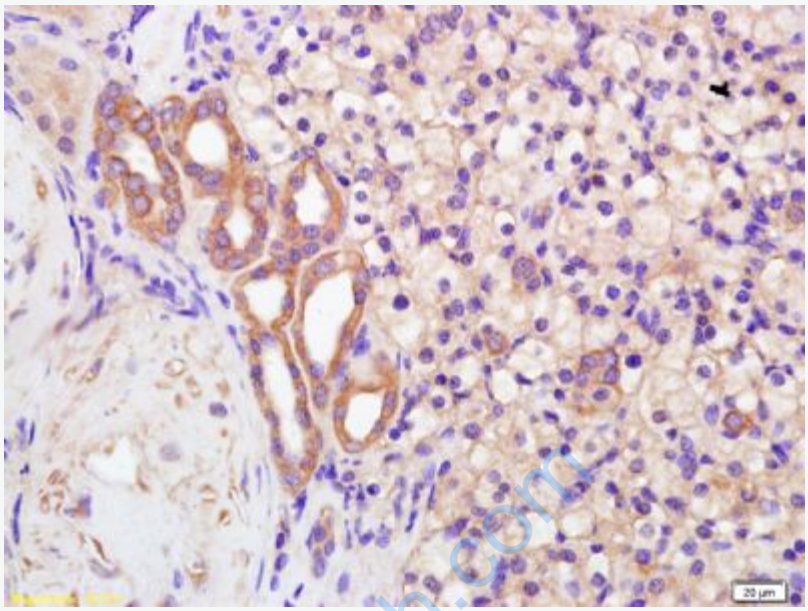
Similarity:
Belongs to the polycystin family.
Contains 1 EF-hand domain.

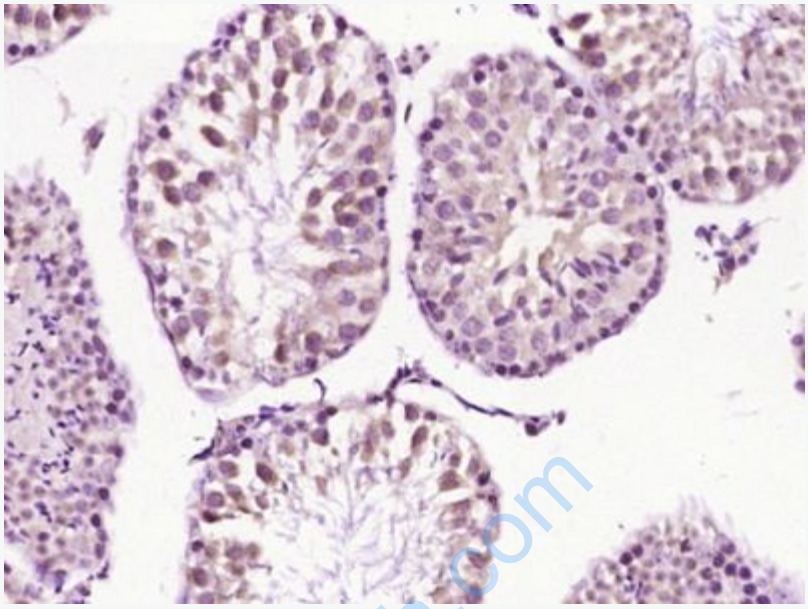
SWISS:
Q13563

Gene ID:
5311

Database links:

	Entrez Gene: 5311Human Entrez Gene: 353503Rat Omim: 173910Human SwissProt: Q13563Human SwissProt: O35245Mouse Unigene: 181272Human Unigene: 483692Mouse Unigene: 6442Mouse **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. 多囊肾(polycystic kidney disease)为遗传性疾病，是肾脏一种先天性异常。双侧肾脏皮髓质均可累及，但在程度上可不同。在遗传方式上表现为常染色体显性和常染色体隐性遗传两种。囊内epithelial cells异常增殖是ADPKD的显著特特之一，处于一种成熟不完全或重发育状态，高度提示为细胞的发育成熟调控出现障碍，使细胞处于一种未成熟状态，从而显示强增殖性。表现为细胞转运密切相关的Na+-K+-ATPase的亚单位组合，分布及活性表达的改变;细胞信号传导异常以及离子转运通道的变化。Extracellular matrix异常增生是ADPKD第三种显著特征。目前许多研究已证明:这些异常均有与细胞生长有关的活性因子的参与。但关键的异常环节和途径尚未明了。因基因缺陷而致的细胞生长改变和间质形成异常，是本病的重要发病机制之一。

Picture:	 Tissue/cell: human kidney carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Polycystin 2 Polyclonal Antibody, Unconjugated(SL2158R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (Mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Polycystin 2) Polyclonal Antibody, Unconjugated (SL2158R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.