

# Polycystin-1L2 (E-12): sc-168988

## BACKGROUND

Polycystin-1L2, also known as PKD1L2 or PC1L2, is a 2,459 amino acid multi-pass membrane protein that belongs to the Polycystin family. Expressed in a variety of tissues, including placenta, brain, liver, lung, testis, skeletal muscle and fetal and adult heart, Polycystin-1L2 is thought to function as an ion-channel regulator and may also exhibit activity as a G protein-coupled receptor. Polycystin-1L2 contains a latrophilin/CL-1-like GPCR proteolytic site (GPS) domain, a polycystin-1, lipoygenase,  $\alpha$ -toxin (PLAT) domain and several trans-membrane domains through which it conveys its regulatory function. Human Polycystin-1L2 shares 73% sequence similarity with its mouse counterpart, suggesting a conserved role between species. Defects in the gene encoding Polycystin-1L2 may be associated with polycystic kidney disease, a progressive disorder characterized by the presence of cysts in the kidneys. Seven isoforms of Polycystin-1L2 exist due to alternative splicing events.

## REFERENCES

1. Wu, G., et al. 1998. Identification of PKD2L, a human PKD2-related gene: tissue-specific expression and mapping to chromosome 10q25. *Genomics* 54: 564-568.
2. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607894. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Li, A., et al. 2003. Identification of two novel polycystic kidney disease-1-like genes in human and mouse genomes. *Genomics* 81: 596-608.
4. Yuasa, T., et al. 2004. Polycystin-1L2 is a novel G-protein-binding protein. *Genomics* 84: 126-138.
5. Augustyniak-Bartosik, H., et al. 2004. Autosomal dominant polycystic kidney disease—research status and clinical manifestation. *Postepy Hig. Med. Dosw.* 58: 530-537.
6. Hovater, M.B., et al. 2008. Purinergic signaling in the lumen of a normal nephron and in remodeled PKD encapsulated cysts. *Purinergic Signal.* 4: 109-124.
7. Aguiari, G., et al. 2008. Novel role for polycystin-1 in modulating cell proliferation through calcium oscillations in kidney cells. *Cell Prolif.* 41:554-573.

## CHROMOSOMAL LOCATION

Genetic locus: Pkd1l2 (mouse) mapping to 8 E1.

## SOURCE

Polycystin-1L2 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Polycystin-1L2 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168988 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Polycystin-1L2 (E-12) is recommended for detection of Polycystin-1L2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Polycystin-1L1 or Polycystin-1L3.

Suitable for use as control antibody for Polycystin-1L2 siRNA (m): sc-152384, Polycystin-1L2 shRNA Plasmid (m): sc-152384-SH and Polycystin-1L2 shRNA (m) Lentiviral Particles: sc-152384-V.

Molecular Weight of Polycystin-1L2: 273 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.