BACKGROUND
Autosomal dominant polycystic kidney disease (ADPKD) is characterized by the formation of cysts in kidney tubules as well as in liver and pancreas tissues. Cells within these cysts display abnormalities in proliferation and polarity. The integral membrane protein, Polycystin-1 (PKD1) is mutated in a majority of patients with ADPKD. Polycystin-1 is expressed in renal tubular epithelial cells and colocalizes with cell and focal adhesion proteins, including E-cadherin, catenins, vinculin, and paxillin, to focal areas in order to form a larger multiprotein complex. Polycystin-1 is posttranslationally modified by tyrosine phosphorylation and associates with Polycystin-2 (PKD2) to mediate AP-1 expression, which suggests that Polycystin-1 is involved in cell-cell and cell-matrix interactions to control cell proliferation and polarity.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: PKD1 (human) mapping to 16p13.3; Pkd1 (mouse) mapping to 17 A3.3.

SOURCE
Polycystin-1 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Polycystin-1 of human origin.

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

PRODUCT
Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.
Blocking peptide available for competition studies, sc-10370 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS
Polycystin-1 (P-15) is recommended for detection of polycystin-1 of mouse, rat and human origin by 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).
Polycystin-1 (P-15) is also recommended for detection of polycystin-1 in additional species, including canine and porcine.
Suitable for use as control antibody for Polycystin-1 siRNA (h): sc-40861, Polycystin-1 siRNA (m): sc-40862, Polycystin-1 shRNA Plasmid (h): sc-40861-SH, Polycystin-1 shRNA Plasmid (m): sc-40862-SH, Polycystin-1 shRNA (h) Lentiviral Particles: sc-40861-V and Polycystin-1 shRNA (m) Lentiviral Particles: sc-40862-V.
Molecular Weight of Polycystin-1: 485 kDa.

RECOMMENDED SECONDARY REAGENTS
To ensure optimal results, the following support (secondary) reagents are recommended: 1) 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™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

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

Try Polycystin-1 (7E12): sc-130554, our highly recommended monoclonal alternative to Polycystin-1 (P-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see Polycystin-1 (7E12): sc-130554.