

Polycystin-2 (E-20): sc-10377

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. Polycystin-2 (PKD2), an integral membrane glycoprotein, is mutated in approximately 15% of patients with ADPKD. Polycystin-2 is expressed in medullary collecting ducts, cortical collecting ducts and distal convoluted tubules of kidney. It associates with Hax-1 and may be involved in cell-matrix interactions. Polycystin-1 and Polycystin-2 display significant homology within their transmembrane region and are thought to interact in order to enhance AP-1 expression, which regulates cell proliferation, differentiation and apoptosis. These findings suggest that mutations in Polycystin-2 may facilitate the development of renal tubular cysts.

CHROMOSOMAL LOCATION

Genetic locus: PKD2 (human) mapping to 4q22.1; Pkd2 (mouse) mapping to 5 E5.

SOURCE

Polycystin-2 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Polycystin-2 of human origin.

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-10377 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Polycystin-2 (E-20) is recommended for detection of polycystin-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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-2 (E-20) is also recommended for detection of Polycystin-2 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Polycystin-2 siRNA (h): sc-40863, Polycystin-2 siRNA (m): sc-40864, Polycystin-2 shRNA Plasmid (h): sc-40863-SH, Polycystin-2 shRNA Plasmid (m): sc-40864-SH, Polycystin-2 shRNA (h) Lentiviral Particles: sc-40863-V and Polycystin-2 shRNA (m) Lentiviral Particles: sc-40864-V.

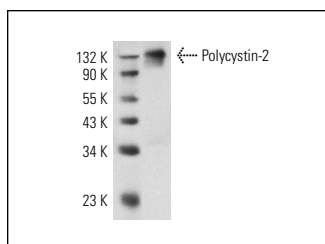
Molecular Weight of Polycystin-2: 130 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285, Caki-1 cell lysate: sc-2224 or KNRK whole cell lysate: sc-2214.

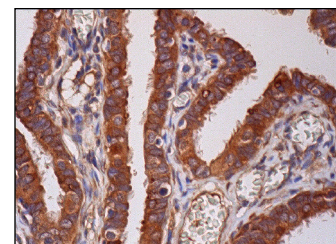
RECOMMENDED SECONDARY REAGENTS

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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Polycystin-2 (E-20): sc-10377. Western blot analysis of Polycystin-2 expression in Caki-1 whole cell lysate.



Polycystin-2 (E-20): sc-10377. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Mason, S.B., et al. 2011. Differential expression of renal proteins in a rodent model of meckel syndrome. *Nephron Exp. Nephrol.* 117: e31-e38.
- Kamura, K., et al. 2011. Pkd111 complexes with Pkd2 on motile cilia and functions to establish the left-right axis. *Development* 138: 1121-1129.
- Wang, Q., et al. 2011. cDNA cloning of porcine PKD2 gene and RNA interference in LLC-PK1 cells. *Gene* 476: 38-45.

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.

MONOS
Satisfaction
Guaranteed

Try **Polycystin-2 (YCE2): sc-47734** or **Polycystin-2 (D-3): sc-28331**, our highly recommended monoclonal alternatives to Polycystin-2 (E-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Polycystin-2 (YCE2): sc-47734**.