**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 multi-protein 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.

**CHROMOSOMAL LOCATION**

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

**SOURCE**

Polycystin-1 (7E12) is a mouse monoclonal antibody raised against recombinant Polycystin-1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Polycystin-1 (7E12) is available conjugated to agarose (sc-130554 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to either phycoerythrin (sc-130554 PE), fluorescein (sc-130554 FITC), Alexa Fluor® 488 (sc-130554 AF488), Alexa Fluor® 546 (sc-130554 AF546), Alexa Fluor® 594 (sc-130554 AF594) or Alexa Fluor® 647 (sc-130554 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-130554 AF680) or Alexa Fluor® 790 (sc-130554 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Polycystin-1 (7E12) is recommended for detection of Polycystin-1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

Positive Controls: WI-38 whole cell lysate; sc-364260.

**STORAGE**

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

**DATA**

Polycystin-1 (7E12): sc-130554. Western blot analysis of Polycystin-1 expression in WI-38 whole cell lysate.

Polycystin-1 (7E12): sc-130554. Western blot analysis of Polycystin-1 expression in purified human urinary exosomes (A) and purified MDCK membrane (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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