

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Polycystin-1/PKD1 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Polycystin-1/PKD1 Gly4142-Thr4303 Accession # P98161
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Polycystin-1 (also PKD1) is a 500-550 kDa member of the polycystin family of proteins. It is expressed in renal tubule primary cilia, and the membrane region that forms adherens junctions. Polycystin-1 binds to polycystin-2, promoting its insertion into the cell membrane, and regulating its calcium channel activity. In conjunction with polycystin-2, it detects fluid flow and converts this information into calcium signals. It also exists in the ER, where it negatively modulates polycystin-2 mediated calcium release. Mature human polycystin-1 is a 4280 amino acid (aa), 11 transmembrane glycoprotein. Its N-terminal extracellular region (aa 24-3074) is highly modular, and contains a C-type lectin domain, multiple Leu-rich repeats and PKD domains, one GPS region and a PLAT, REJ, WSC and LDLR domain. The cytoplasmic C-terminus (aa 4107-4303) contains a polycystin-2 coiled-coil interaction domain (aa 4220-4251). A percentage of polycystin-1 undergoes autoproteolysis after Leu3048, generating a presumed N-terminal fragment of ~ 350-400 kDa, and a membrane-bound C-terminal fragment of 150 kDa. Over aa 4141-4303, human polycystin-1 shares 71% aa identity with mouse polycystin-1.

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