# Recombinant Human PKD1 protein (His Tag)

**Catalog Number: PDEH101011**

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

## Description

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|---|---|
| **Species** | Human |
| **Source** | E.coli-derived Human PKD1 protein Gly177-Leu359, with an N-terminal His |
| **Calculated MW** | 20.0 kDa |
| **Observed MW** | 22 kDa |
| **Accession** | P98161 |
| **Bio-activity** | Not validated for activity |

## Properties

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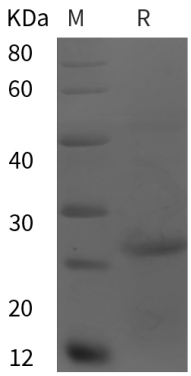
|---|---|
| **Purity** | > 95% as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 10 EU/mg of the protein as determined by the LAL method |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months. |
| **Shipping** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol. |
| **Reconstitution** | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis. |

## Data




> 95 % as determined by reducing SDS-PAGE.

## 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.