

# Recombinant Human Polycystic Kidney Disease 2 (Autosomal Dominant)

Cat. No. PKD2-660H Lot. No. (See product label)

## SPECIFICATION

<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	PKD2 is a novel phorbol ester- and growth factor-stimulated serine/threonine kinase that contains two cysteine-rich motifs at the N terminus, a pleckstrin homology domain, and a catalytic domain. It exhibits the strongest homology to the serine/threonine protein kinases PKD/PKC $\mu$ and PKC $\nu$ . The PKD family of enzymes have been implicated in very diverse cellular functions, including Golgi organization and plasma membrane directed transport, metastasis, immune responses, apoptosis and cell proliferation.
<b>Application</b>	Kinase activity is measured as the molar amount of phosphate incorporated into the CREBTIDE substrate peptide (KRREILSRPSYR), per minute per mg protein at 30 °C using a final concentration of 50 $\mu$ M [32P] ATP.
<b>Biochem/physiol Actions</b>	PKD2 is a novel phorbol ester- and growth factor-stimulated serine/threonine kinase that contains two cysteine-rich motifs at the N terminus, a pleckstrin homology domain, and a catalytic domain. The PKD family of enzymes have been implicated in very diverse cellular functions, including Golgi organization and plasma membrane directed transport, metastasis, immune responses, apoptosis and cell proliferation.
<b>Physical Form</b>	Solution of 50 $\mu$ l in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM dithiothreitol

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

(DTT), 0.1 mM EGTA, and 30% glycerol.

**Assay** ≥70% (SDS-PAGE).

**Form** aqueous glycerol solution.

**Mol Wt** protein apparent mol wt ~140 kDa.

**Storage Temp** -70°C.

## GENE INFORMATION

**Gene Name** [PKD2 polycystic kidney disease 2 \(autosomal dominant\) \[ Homo sapiens \]](#)

**Synonyms** PKD2; polycystic kidney disease 2 (autosomal dominant); PC2; PKD4; Pc-2; APKD2; TRPP2; MGC138466; MGC138468; polycystwin; polycystwin; transient receptor potential cation channel, subfamily P, member 2

**Gene ID** [5311](#)

**mRNA Refseq** [NM\\_000297](#)

**Protein Refseq** [NP\\_000288](#)

**MIM** [173910](#)

**UniProt ID** [Q13563](#)

**Chromosome Location** 4q21-q23

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



**Function**

ATP binding; calcium ion binding; channel activity; cytoskeletal protein binding; ion channel activity; potassium channel activity; protein C-terminus binding; voltage-gated chloride channel activity; voltage-gated sodium channel activity

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA