

Product datasheet for **RC220948**

Polycystin 2 (PKD2) (NM_000297) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Polycystin 2 (PKD2) (NM_000297) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Polycystin 2
Synonyms:	APKD2; Pc-2; PC2; PKD4; TRPP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC220948 representing NM_000297
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTGAAGTCCAGTTCGCGTGCAGCCTCAGCAGCCGGGGACGCCAAGCGGCCGCCCGCCCGCCCGCGCGC
 CGGACCCGGGCCCGCTGATGGCTGGCTGCGCGGCCGTGGGCGCCAGCCTCGCCGCCCGGGCGGCCCTCTG
 CGAGCAGCGGGCCTGGAGATCGAGATGCAGCGCATCCGGCAGGCGGCCGCGCGGGACCCCCGGCCGGA
 GCCCGGCCCTCCCTTCTCCTCCGCTCTCGTCGTCTCCCGCAGGCGTGGAGCCGCGATAACCCCGGCT
 TCGAGGCCGAGGAGGAGGAGGAGGTGGAAGGGGAAGAAGCGGAATGGTGGTGGAGATGGACGTAGA
 GTGGCGCCCGGGCAGCCGAGGTGCGCCGCTCCTCGGCCGTGAGCTCCGTGGCGCGGGAGCCGGGGG
 CTTGGGGGCTACCAGCGCGGGCCACCCGAGCGGGAGGCGCGCCGGCAGAGGACCAGGGCCCGCGT
 GCCCAGCCAGTCGGCGCGGGGACCCGCTGCATCGCCACCTCCCCCTGGAAGGGCAGCCGCCCGGAGT
 GGCTGGCGGAGAGGCTGGTTCGCGGGTGCAGGCTCTGGGGAACAAGACTCATGGAGAAAGCAGC
 ACTAACCGAGAGAAATACCTTAAAAGTGTTCACGGAACTGGTACATACCTCCTTTTTCTCATAGTCT
 TGTGCATCTTGACCTACGGCATGATGAGCTCCAATGTGTACTACTACCCGGATGATGTACAGCTCTT
 CCTAGACACCCCGTGTCCAAAACGGAGAAAATAACTTTAAAATCTGTCTTCCATGGAAGACTTCTGG
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 AGTAGTGAAGATAGGGCTCCCTTTGGGCCCGAAATGGAACCGCTTGATCTACACAAGTAAAAAGACT
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 GTTTCTGGAAGATCAAAATACTTTCCCAACTTTGAGCATCTGGCATATTGGCAGATACAGTTCAACAAT
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 GAGTGTATCTTCACTCAATTCGGTATCATTTTGGGCGATCAACTTTGCAGAGATTGAGGAAGCTAATC
 GAGTTTGGGACCAATTTATTTCACTACATTTGTGTTCTTTATGTTCTTCATTCTTTTGAATATGTTTTT
 GGCTATCATCAATGATACTTACTCTGAAGTGAATCTGACTTGGCACAGCAGAAAGCTGAAATGAAACTC
 TCAGATCTTATCAGAAAGGGCTACCATAAAGCTTTGGTCAAATAAACTGAAAAAAAATACCGTGGATG
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 GTTCTTTACCACGTCCCATGAGCAGCCGAAGTTTCCCTCGAAGCCTGGATGACTCTGAGGAGGATGACGA
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 GAAGAGTTGGAACGCTGGGAATCCGATGATGCAGCTTCCAGATCAGTCAATGTTTAGGCACGCCAGTGG
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 TGCAGGTGAAATGGGAGTTCTAATGTCCACGTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220948 representing NM_000297
 Red=Cloning site Green=Tags(s)

MVNSSRVQPQQPGDAKRPPAPRAPDPGPLMAGCAAVGASLAAPGGLCEQRGLEIEMQRIRQAAARDPPAG
 AAASPSPPLSSCSRQAWSRDNPGFEAEVEEGMVEVMDVWRPGRSRAASSVSSVGARSRG
 LGGYHGAGHPSGRRRRREDQPPCSPVGGDPLHRHLEGGQPPRVAWAERLVRGLRGLWGTRLMEESS
 TNREKYLKSVLRELVTYLLFLIVLCILTYGMSSNVYYTRMMSQLFLDTPVSKTEKTNFKTLSSMEDFW
 KFTEGSLLDGLYWKMQPSNQTEADNRSFIFYENLLLGVPRIRQLRVRNGSCSIPQDLRDEIKECYDVYSV
 SSEDRAFPGRNGTAWIYTSEKDLNGSSHGIIATYSGAGYYLDLSTREETAAQVASLKKNVWLDGRGTR
 ATFIDFSVYNANINLFCVVRLLVEFPATGGVIPSQWQFQPLKLIYVTTDFDFFLAACEIIFCFFIFYVVE
 EILEIRIHKLHYFRSFWNCLDVIVVLSVAIGINIYRTSNVEVLLQFLEDQNTFPNFEHLAYWQIQFNN
 IAAVTVFFVWIKLFKFINFNRTMSQLSTTMSRCAKDLFGFAIMFFIIFLAYAQLAYLVFGTQVDDFSTFQ
 ECIFTQFRIILGDINFAEIEEANRVLGPIYFTTFVFFMFFILLNMFLAIINDTYSEVKSDLAQKKAEMEL
 SDLIRKGYHKALVKLKLKNTVDDISESLRQGGKLNFDLRLQDLKGGKHTDAEIEAIFTKYDQDGDQEL
 TEHEHQMRDDLEKEREDLDLHSSLPRPSSRSFPRSLDSEEDDEDGSHSSRRRGSISSGVSYEEFQ
 VLVRVRDRMEHSIGSIVSKIDAVIVKLEIMERAKLRREVLGRLLDGVADERLGRDSEIHREQMERLVR
 EELERWESDDAASQISHGLGTPVGLNGQPRPSSRPSSSQSTEGMEGAGNGSSNVHV

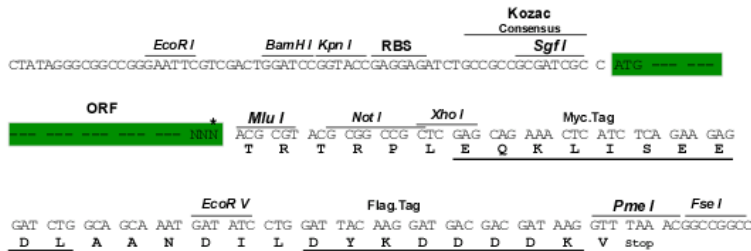
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2783_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



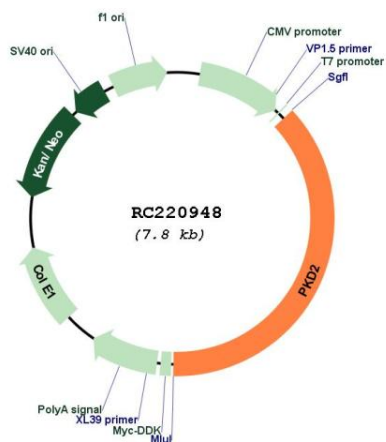
* The last codon before the Stop codon of the ORF

ACCN: NM_000297

ORF Size: 2904 bp

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_000297.4
RefSeq Size:	5073 bp
RefSeq ORF:	2907 bp
Locus ID:	5311
UniProt ID:	Q13563
Cytogenetics:	4q22.1
Domains:	ion_trans
Protein Families:	Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane
MW:	109.5 kDa
Gene Summary:	This gene encodes a member of the polycystin protein family. The encoded protein is a multi-pass membrane protein that functions as a calcium permeable cation channel, and is involved in calcium transport and calcium signaling in renal epithelial cells. This protein interacts with polycystin 1, and they may be partners in a common signaling cascade involved in tubular morphogenesis. Mutations in this gene are associated with autosomal dominant polycystic kidney disease type 2. [provided by RefSeq, Mar 2011]

Product images:



Circular map for RC220948