OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR225337

Pkd2l1 (NM_181422) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pkd2l1 (NM_181422) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pkd2l1
Synonyms:	B830002B15; BC046386; PCL; PKD2L; Pkdl; TRPP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR225337 representing NM_181422
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAATAGTATGGAAAGCCCCAAGAATCAGGAGCTACAAACCCTGGGGAACAGAGCCTGGGACAATCCTG
CCTACAGCGACCCTCCTTCCCCGAACAGGACGCTGAGGATCTGCACTGTCTCCAGTGTGGCTCTCCCTGA
GACTCAACCCAAAAAGCCAGAAGTCAGATGCCAGGAGAAGACACAGAGAACCCTGGTGTCCAGCTGCTGT
CTCCATATCTGTCGGAGCATCAGAGGACTGTGGGGGACAACGCTGACTGAGAACACAGCCGAGAACAGGG
AGCTTTATGTCAAGACCACCCTGAGGGAGCTTGTGGTATACATAGTGTTCCTCGTGGACATCTGTCTGTT
GACCTACGGAATGACAAGTTCTAGTGCCTATTACTACACCAAAGTGATGTCTGAATTGTTCCTACACACC
CCATCCGACTCTGGAGTCTCCTTCCAAACCATCAGCAGCATGTCAGACTTCTGGGATTTTGCTCAGGGCC
CACTCCTGGACAGTTTGTACTGGACAAAGTGGTACAACAACCAGAGCCTGGGGCGTGGCTCCCACTCCTT
CATCTACTATGAGAACCTGCTCCTGGGAGCCCCAAGGTTGCGGCAGCTGCGCGTGCGCAATGACTCCTGT
GTGGTTCATGAAGACTTCCGGGAGGACATTTTGAACTGTTATGATGTGTACTCGCCGGACAAAGAAGATC
AGCTCCCCTTTGGACCTCAGAACGGCACAGCGTGGACATACCATTCCCAGAATGAGCTGGGTGGCTCCTC
CCACTGGGGCAGGCTCACAAGCTACAGCGGGGGTGGCTACTACTTGGATCTTCCAGGATCCCGACAAGCC
AGTGCAGAGGCCCTCCAAGGACTCCAGGAGGGACTGTGGCTGGACAGGGGCACTCGGGTGGTCTTTATCG
ACTTCTCCGTCTACAATGCCAACATCAATCTTTTCTGTATTCTGAGACTGGTGGTAGAGTTTCCAGCCAC
AGGAGGGACCATCCCATCCTGGCAGATCCGCACAGTTAAGCTGATCCGCTATGTGAATAACTGGGACTTC
TTCATTGTGGGCTGTGAAGTTGTCTTCTGTGTCTTCATCTTCTATTATGTGGTGGAGGAAATCCTGGAAA
TCCACCTGCATCGGCTTCGCTACCTCAGCAGCGTCTGGAACATTCTGGACCTGGTGGTCATCTTGCTCTC
CATCGTGGCTGTGGGTTTCCACATATTCCGAACCCTGGAAGTGAACCGACTGATGGGAAAGCTTCTGCAA
CAGCCAGACACGTATGCAGACTTTGAGTTCCTGGCCTTCTGGCAGACTCAGTACAATAACATGAACGCGG
TCAACCTTTTCTTTGCTTGGATCAAGATATTCAAGTATATCAGCTTCAACAAGACCATGACACAGCTCTC
CTCCACCCTGGCTCGCTGTGCCAAGGACATCCTGGGCTTTGCCATCATGTTCTTCATTGTCTTCTTCGCT
TACGCCCAGCTTGGCTACCTGCTTTTTGGGACCCAAGTGGAAAACTTTAGCACTTTCGTCAAGTGCATTT
TCACTCAGTTCCGGATAATCCTTGGGGATTTTGACTACAATGCCATCGACAATGCCAACAGAATCCTGGG
CCCTGTGTACTTTGTCACCTATGTCTTCTTCGTCTTCTTCGTGCTCCTGAACATGTTCCTGGCCATCATC
AACGACACATACTCCGAGGTCAAGGAGGAGCTGGCTGGCCAGAAGGATCAGTTGCAGCTTTCTGACTTCC
TGAAACAGAGCTACAACAAGACCCTACTAAGGCTGCGCCTGAGGAAAGAGCGGGTTTCTGATGTGCAGAA
GGTCCTGAAGGGTGGGGAACCAGAGATCCAGTTTGAAGATTTCACCAGCACCTTGAGGGAACTGGGGCAC
GAGGAGCACGAGATCACCGCTGCCTTCACCAGGTTTGATCAGGATGGGGACCACATACTGGATGAGGAGG
AGCAGGAACAGATGCGGCAGGGACTGGAAGAGGAGAGGGTGACCCTCAATGCTGAGATTGAGAACCTAGG
CCGGTCTGTTGGACACAGCCCCCCAGGCGAATTGGGCGCGGAGGCTGCCAGAGGACAAAGCTGGGTTTCT
GGAGAAGAATTCGACATGCTCACAAGGAGAGTTCTGCAGCTGCAGTGTGTTCTGGAAGGAGTTGTGTCCC
AGATTGATGCTGTAGGCTCAAAGCTGAAGATGCTGGAGAGGAAAGGGGAGCTGGCTCCCTCCCCAGGAAT
GGGGGAACCAGCTGTTTGGGAGAACCTGTATAATCCGTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR225337 representing NM_181422
Red=Cloning site Green=Tags(s)

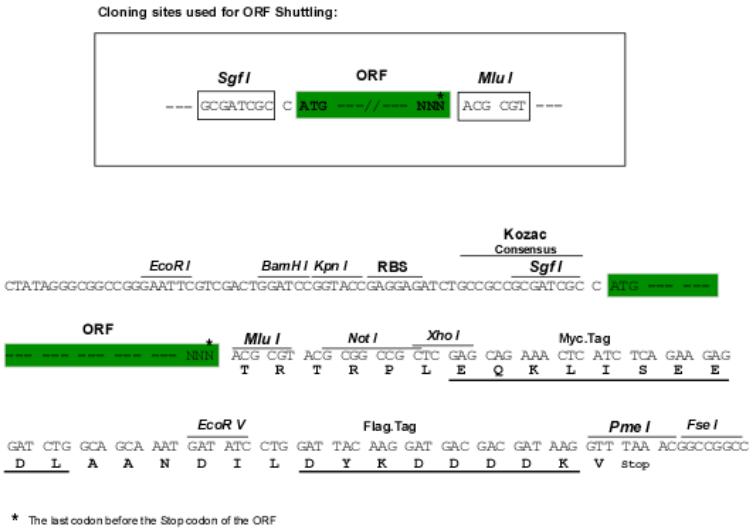
MNSMESPKNQELQTLGNRAWDNPAYSDPPSPNRTLRICTVSSVALPETQPKKPEVRCQEKTQRTLVSSCC
LHICRSIRGLWGTTLTENTAENRELYVKTTLRELVVYIVFLVDICLLTYGMTSSSAYYYTKVMSELFLHT
PSDSGVSFQTISSMSDFWDFAQGPLLDSLYWTKWYNNQSLGRGSHSFIYYENLLLGAPRLRQLRVRNDSC
VVHEDFREDILNCYDVYSPDKEDQLPFGPQNGTAWTYHSQNELGGSSHWGRLTSYSGGGYYLDLPGSRQA
SAEALQGLQEGLWLDRGTRVVFIDFSVYNANINLFCILRLVVEFPATGGTIPSWQIRTVKLIRYVNNWDF
FIVGCEVVFCVFIFYYVVEEILEIHLHRLRYLSSVWNILDLVVILLSIVAVGFHIFRTLEVNRLMGKLLQ
QPDTYADFEFLAFWQTQYNNMNAVNLFFAWIKIFKYISFNKTMTQLSSTLARCAKDILGFAIMFFIVFFA
YAQLGYLLFGTQVENFSTFVKCIFTQFRIILGDFDYNAIDNANRILGPVYFVTYVFFVFFVLLNMFLAII
NDTYSEVKEELAGQKDQLQLSDFLKQSYNKTLLRLRLRKERVSDVQKVLKGGEPEIQFEDFTSTLRELGH
EEHEITAAFTRFDQDGDHILDEEEQEQMRQGLEEERVTLNAEIENLGRSVGHSPPGELGAEAARGQSWVS
GEEFDMLTRRVLQLQCVLEGVVSQIDAVGSKLKMLERKGELAPSPGMGEPAVWENLYNPS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9013_c06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_181422

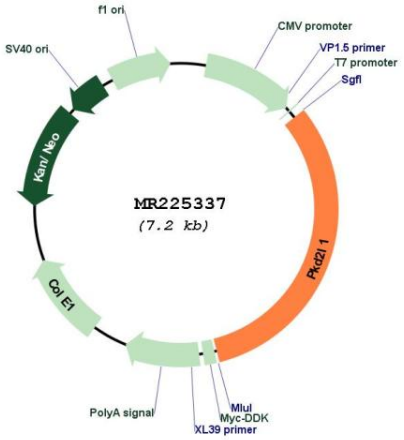
ORF Size: 2280 bp

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:	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_181422.3, NP_852087.2
RefSeq Size:	3321 bp
RefSeq ORF:	2283 bp
Locus ID:	329064
UniProt ID:	A2A259
Cytogenetics:	19 36.91 cM
MW:	87.7 kDa
Gene Summary:	Pore-forming subunit of a heteromeric, non-selective cation channel that is permeable to Ca(2+) (PubMed:16891422, PubMed:15548533, PubMed:19464260, PubMed:20538909, PubMed:21185261, PubMed:22420714, PubMed:25820328, PubMed:28904867, PubMed:29567962). Pore-forming subunit of a calcium-permeant ion channel formed by PKD1L2 and PKD1L1 in primary cilia, where it controls cilium calcium concentration, but does not affect cytoplasmic calcium concentration (PubMed:24336288, PubMed:24336289). The channel formed by PKD1L2 and PKD1L1 in primary cilia regulates sonic hedgehog/SHH signaling and GLI2 transcription (PubMed:24336288). Pore-forming subunit of a channel formed by PKD1L2 and PKD1L3 that contributes to sour taste perception in gustatory cells (PubMed:16891422, PubMed:16929298, PubMed:20406802, PubMed:21098668, PubMed:21625513). The heteromeric channel formed by PKD1L2 and PKD1L3 is activated by low pH, but opens only when the extracellular pH rises again (PubMed:18535624, PubMed:19464260, PubMed:20538909, PubMed:20406802, PubMed:22420714, PubMed:28904867, PubMed:29567962). May play a role in the perception of carbonation taste (PubMed:19833970). May play a role in the sensory perception of water, via a mechanism that activates the channel in response to dilution of salivary bicarbonate and changes in salivary pH (PubMed:28553944).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225337