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Product datasheet for MG225337

Pkd2l1 (NM_181422) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pkd2l1 (NM_181422) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pkd2l1
Synonyms:	B830002B15; BC046386; PCL; PKD2L; Pkdl; TRPP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>MG225337 representing NM_181422
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAATAGTATGGAAAGCCCCAAGAATCAGGAGCTACAAACCCTGGGGAACAGAGCCTGGGACAATCCTG
CCTACAGCGACCCTCCTTCCCCGAACAGGACGCTGAGGATCTGCACTGTCTCCAGTGTGGCTCTCCCTGA
GACTCAACCCAAAAAGCCAGAAGTCAGATGCCAGGAGAAGACACAGAGAACCCTGGTGTCCAGCTGCTGT
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GACCTACGGAATGACAAGTTCTAGTGCCTATTACTACACCAAAGTGATGTCTGAATTGTTCCTACACACC
CCATCCGACTCTGGAGTCTCCTTCCAAACCATCAGCAGCATGTCAGACTTCTGGGATTTTGCTCAGGGCC
CACTCCTGGACAGTTTGTACTGGACAAAGTGGTACAACAACCAGAGCCTGGGGCGTGGCTCCCACTCCTT
CATCTACTATGAGAACCTGCTCCTGGGAGCCCCAAGGTTGCGGCAGCTGCGCGTGCGCAATGACTCCTGT
GTGGTTCATGAAGACTTCCGGGAGGACATTTTGAACTGTTATGATGTGTACTCGCCGGACAAAGAAGATC
AGCTCCCCTTTGGACCTCAGAACGGCACAGCGTGGACATACCATTCCCAGAATGAGCTGGGTGGCTCCTC
CCACTGGGGCAGGCTCACAAGCTACAGCGGGGGTGGCTACTACTTGGATCTTCCAGGATCCCGACAAGCC
AGTGCAGAGGCCCTCCAAGGACTCCAGGAGGGACTGTGGCTGGACAGGGGCACTCGGGTGGTCTTTATCG
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TCACTCAGTTCCGGATAATCCTTGGGGATTTTGACTACAATGCCATCGACAATGCCAACAGAATCCTGGG
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TGAAACAGAGCTACAACAAGACCCTACTAAGGCTGCGCCTGAGGAAAGAGCGGGTTTCTGATGTGCAGAA
GGTCCTGAAGGGTGGGGAACCAGAGATCCAGTTTGAAGATTTCACCAGCACCTTGAGGGAACTGGGGCAC
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AGCAGGAACAGATGCGGCAGGGACTGGAAGAGGAGAGGGTGACCCTCAATGCTGAGATTGAGAACCTAGG
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GGAGAAGAATTCGACATGCTCACAAGGAGAGTTCTGCAGCTGCAGTGTGTTCTGGAAGGAGTTGTGTCCC
AGATTGATGCTGTAGGCTCAAAGCTGAAGATGCTGGAGAGGAAAGGGGAGCTGGCTCCCTCCCCAGGAAT
GGGGGAACCAGCTGTTTGGGAGAACCCGTATAATCCGTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

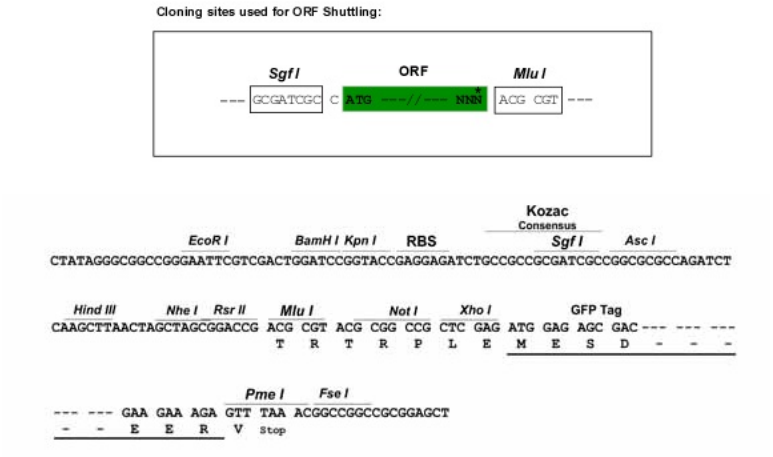
>MG225337 representing NM_181422
Red=Cloning site Green=Tags(s)

MNSMESPKNQELQTLGNRAWDNPAYSDPPSPNRTLRICTVSSVALPETQPKKPEVRCQEKTQRTLVSSCC
LHICRSIRGLWGTTLTENTAENRELYVKTTLRELVVYIVFLVDVCLLTYGMTSSSAYYYTKVMSELFLHT
PSDSGVSFQTISSMSDFWDFAQGPLLDSLYWTKWYNNQSLGRGSHSFIYYENLLLGAPRLRQLRVRNDSC
VVHEDFREDILNCYDVYSPDKEDQLPFGPQNGTAWTYHSQNELGGSSHWGRLTSYSGGGYYLDLPGSRQA
SAEALQGLQEGLWLDRGTRVVFIDFSVYNANINLFCILRLVVEFPATGGTIPSWQIRTVKLIRYVNNWDF
FIVGCEVVFCVFIFYYVVEEILEIHLHRLRYLSSVWNILDLVVILLSIVAVGFHIFRTLEVNRLMGKLLQ
QPDTYADFEFLAFWQTQYNNMNAVNLFFAWIKIFKYISFNKTMTQLSSTLARCAKDILGFAIMFFIVFFA
YAQLGYLLFGTQVENFSTFVKCIFTQFRIILGDFDYNAIDNANRILGPVYFVTYVFFVFFVLLNMFLAII
NDTYSEVKEELAGQKDQLQLSDFLKQSYNKTLLRLRLRKERVSDVQKVLKGGEPEIQFEDFTSTLRELGH
EEHEITAAFTRFDQDGDHILDEEEQEQMRQGLEEERVTLNAEIENLGRSVGHSPPGELGAEAARGQSWVS
GEEFDMLTRRVLQLQCVLEGVVSQIDAVGSKLKMLERKGELAPSPGMGEPAVWENPYNPS

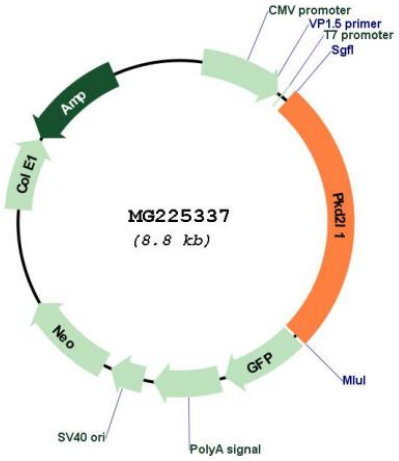
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



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

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]