

## Product datasheet for **SC323442**

### PKC delta (PRKCD) (NM\_006254) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PKC delta (PRKCD) (NM_006254) Human Untagged Clone
Tag:	Tag Free
Symbol:	PRKCD
Synonyms:	ALPS3; CVID9; MAY1; nPKC-delta; PKCD
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC323442 sequence for NM\_006254 edited (data generated by NextGen Sequencing)

```

ATGGCGCCGTTCTCGGCATCGCCTTCAACTCCTATGAGCTGGGCTCCCTGCAGGCCGAG
GACGAGGCCAACCAGCCCTTCTGTGCCGTGAAGATGAAGGAGGCCCTCAGCACAGAGCGT
GGGAAAACACTGGTGCAGAAGAAGCCGACCATGTATCCTGAGTGGAAAGTCGACGTTCCGAT
GCCACATCTATGAGGGGCGCGTCATCCAGATTGTCTAATGCGGGCAGCAGAGGCCA
GTGTCTGAGGTGACCGTGGGTGTGTGGTGTGGCCGAGCGCTGCAAGAAGAACAATGGC
AAGGCTGAGTTCTGGCTGGACCTGCAGCCTCAGGCCAAGGTGTTGATGTCTGTTCAGTAT
TTCTGGAGGACGTGGATTGCAAACAGTCTATGCGCAGTGAAGGACGAGGCCAAGTCCCA
ACGATGAACCGCCGCGGAGCCATCAAACAGGCCAAAATCCACTACATCAAGAACCATGAG
TTTATCGCCACCTTTTGGGCAACCCACCTTCTGTTCTGTGTGCAAAGACTTTGTCTGG
GGCCTCAACAAGCAAGGCTACAAATGCAGGCAATGTAACGCTGCCATCCACAAGAAATGC
ATCGACAAGATCATCGGCAGATGCACTGGCACCGGCCAACAGCCGGGACACTATATTC
CAGAAAGAACGCTTCAACATCGACATGCCGCACCGCTTCAAGGTTCACAACTACATGAGC
CCCACCTTCTGTGACCACTGCGGCAGCCTGCTCTGGGGACTGGTGAAGCAGGGATTAAG
TGTGAAGACTGCGGCATGAATGTGCACCATAAATGCCGGGAGAAGGTGGCCAACCTCTGC
GGCATCAACCAGAAGCTTTTGGCTGAGGCCTTGAACCAAGTCACCCAGAGAGCCTCCCGG
AGATCAGACTCAGCCTCCTCAGAGCCTGTTGGGATATATCAGGGTTTCGAGAAGAAGACC
GGAGTTGCTGGGAGGACATGCAAGACAACAGTGGGACCTACGGCAAGATCTGGGAGGGC
AGCAGCAAGTGAACATCAACAACCTTCTTCCACAAGTCTGGGCAAAGGCAGCTTC
GGGAAGGTGCTGCTTGGAGAGCTGAAGGGCAGAGGAGTACTTTGCCATCATGGCCCTC
AAGAAGGATGTGGTCTGATCGACGACGACGTGGAGTGCACCATGGTTGAGAAGCGGGTG
CTGACACTTCCGCGAGAGAATCCCTTTCTACCCACCTCATCTGCACCTCCAGACCAAG
GACCACTGTTCTTTGTGATGGAGTTCCTCAACGGGGGGACCTGATGTACCACATCCAG
GACAAAGGCCGCTTTGAACTCTACCGTGCCACGTTTTATGCCGCTGAGATAATGTGTGA
CTGCAGTTTACACAGCAAGGGCATCATTTACAGGGACCTCAAAGTGGACAATGTGCTG
TTGGACCGGGATGGCCACATCAAGATTGCCGACTTTGGGATGTGCAAAGAGAACATATTC
GGGGAGAGCCGGCCAGCACCTTCTGCGGCACCCCTGACTATATCGCCCCTGAGATCCTA
CAGGGCCTGAAGTACACATTCTGTGGACTGGTGGTCTTTGGGGTCTTCTGTACGAG
ATGCTCATTGGCCAGTCCCCTTCCATGGTGTGATGAGGATGAACTCTTCGAGTCCATC
CGTGTGGACACGCCACATTATCCCGCTGGATCACCAGGAGTCCAAGGACATCCTGGAG
AAGCTCTTTGAAAGGGAAACCAACCAAGAGGCTGGGAGTGACGGGAACATCAAAAATCCAC
CCCTTCTTCAAGACCATAAACTGGACTCTGCTGAAAAGCGGAGGTTGGAGCCACCCCTC
AGGCCCAAAGTGAAGTCAACCCAGAGACTACAGTAACTTTGACCAGGAGTTCCTGAACGAG
AAGGCGCGCCTCTCTACAGCGACAAGAACCTCATCGACTCCATGGACCAGTCTGCATTC
GCTGGCTTCTCCTTTGTGAACCCCAAATTCGAGCACCTCTGGAAGATTGA
    
```

Clone variation with respect to NM\_006254.3  
 1133 a=>t;1441 c=>t;1782 c=>g;1857 t=>c

**5' Read Nucleotide Sequence:**

```

>OriGene 5' read for mutant NM_006254 unedited
CCGCCCCGTTGTAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCCGCGCGCCGGA
GCCCGAGGCGGTGTAGCCACATCTCCGAGCGACCCCGCGCCCGCCGCGCGGAGGCCCGGGC
CACACCTCACTGGCCGCTTGGCCATCCCAGTCAGCGCCGCGCCGAACCCGTCGCGCGCGCCGGGGAG
CGGCGCCCCCGCTGCGCGCCGACCCCTTGGCGCTGCCCTGCAACGGGAGCCCACTGCAGGCCCC
ACCATGGCGCCGTTCTGCGCATCGCCTTCAACTCTATGAAGCTGGGGTCCCTGCAGGCCGAGGACGA
AGGCGAACCCCTTCTGTGCCTTGTGATGAAGGAGGCGCTCAGCCAGACCGTGGGAAAACCTGGTTG
CAGAAGAGCCACCTTGTATCCTGATTGGAAGTCGACGTTGAATGCCAACTTCTTTGAGGGCGGTTCCG
ATGGGCTATGCGGCAGCAAGAGACCCATTTCTGAGGGACTGGTGTGCGTGTGCGCAACCGTGCAGATA
CATGGCAGAGCTATTCGTGTGGACTGCACTTGGCAAGGTGAATCTGCCAGATTCTGGACTGATATGCACC
TTACCATGGCCAGGCATTTCTGAGGACACCGTCCGACTTCAAGCGTAATGCAAAATAACA
    
```

**Kinase Domain Sequence:** >SC323442 kinase domain raw sequence. By performing [BLASTX](#) analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation

```
GRCAGTGCACATCAACACTTCATCTTCCACAAGGTCTGGGCAAAGGCAGCTTCGGGAAGGTGCTGCTTG
GAGAGCTGAAGGGCAGAGGAGAGTACTTTGCCATCATGGCCCTCAAGAAGGATGTGGTCTGATCGACGA
CGACGTGGAGTGCACCATGGTTGAGAAGCGGGTCTGACACTTGCCGCAGAGAATCCCTTTCTACCCAC
CTCATCTGCACCTTCCAGACCAAGGACCACCTGTTCTTTGTGATG
```

**Restriction Sites:** Please inquire

**ACCN:** NM\_006254

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." [Cell, 2008 May p536-548.](#)

**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\\_006254.3](#), [NP\\_006245.2](#)

**RefSeq Size:** 2850 bp

**RefSeq ORF:** 2031 bp

**Locus ID:** 5580

**UniProt ID:** [Q05655](#)

**Cytogenetics:** 3p21.1

<b>Domains:</b>	pkinese, S_TK_X, TyrKc, DAG_PE-bind, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Chemokine signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, GnRH signaling pathway, Neurotrophin signaling pathway, Tight junction, Type II diabetes mellitus, Vascular smooth muscle contraction
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a member of the protein kinase C family of serine- and threonine-specific protein kinases. The encoded protein is activated by diacylglycerol and is both a tumor suppressor and a positive regulator of cell cycle progression. Also, this protein can positively or negatively regulate apoptosis. Defects in this gene are a cause of autoimmune lymphoproliferative syndrome. [provided by RefSeq, Aug 2017]</p> <p>Transcript Variant: This variant (1) differs in the 5' UTR and coding sequence compared to variant 4. The resulting isoform (c) is shorter at the N-terminus compared to isoform a. Variants 1, 2, 3, 6, and 7 all encode the same isoform (c).</p>