

Product datasheet for **SC118454**

PKC beta 1 (PRKCB) (NM_002738) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC beta 1 (PRKCB) (NM_002738) Human Untagged Clone
Tag:	Tag Free
Symbol:	PKC beta 1
Synonyms:	PKC-beta; PKCB; PKCbeta; PKCI(2); PRKCB1; PRKCB2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

>OriGene ORF sequence for NM_002738 edited
 ATGGCTGACCCGGCTGCGGGGCCCGCCGAGCGAGGGCGAGGAGACACCGTGCCTTC
 GCCCGCAAAGGCGCCCTCCGGCAGAAGAACGTGCATGAGGTCAAGAACCACAAATTCACC
 GCCCGCTTCTTCAAGCAGCCACCTTCTGCAGCCACTGCACCGACTTCATCTGGGGCTTC
 GGAAGCAGGGATTCCAGTGCCAAGTTTGTGCTTTGTGGTGCACAAGCGGTGCCATGAA
 TTTGTCACATTCTCCTGCCCTGGCGTGACAAGGGTCCAGCCTCCGATGACCCCCGCAGC
 AAACACAAGTTTAAAGATCCACACGTACTCCAGCCCCAGTTTTGTGACCACTGTGGGTCA
 CTGCTGTATGGACTCATCCACCAGGGGATGAAATGTGACACCTGCATGATGAATGTGCAC
 AAGCGCTGCGTGATGAATGTTCCAGCCTGTGTGGCACGACCACACGGAGCGCCGCGGC
 CGCATCTACATCCAGGCCACATCGACAGGGACGTCTCATTGTCTCGTAAGAGATGCT
 AAAAACCTTGTACCTATGGACCCCAATGGCCTGTCAGATCCCTACGTA AAACTGAAACTG
 ATTCCCGATCCCAAAAGTGAGAGCAAACAGAAGACCAAAACCATCAAATGCTCCCTCAAC
 CCTGAGTGAATGAGACATTTAGATTTTCACTGAAAGAATCGGACAAAGACAGAAGACTG
 TCAGTAGAGATTTGGGATTGGGATTTGACCAGCAGGAATGACTTCATGGGATCTTTGTCC
 TTTGGGATTTCTGAACCTCAGAAAGCCAGTGTGATGGCTGGTTTAAAGTTACTGAGCCAG
 GAGGAAGCGGAGTACTTCAATGTGCCTGTGCCACCAGAAGGAAGTGAGGCCAATGAAGAA
 CTGCGGCAGAAATTTGAGAGGGCCAAGATCAGTCAGGGAACCAAGTCCCGGAAGAAAAG
 ACGACCAACACTGTCTCCAAATTTGACAACAATGGCAACAGAGACCGGATGAAACTGACC
 GATTTTAACTTCTAATGGTGCTGGGAAAGGCAGCTTTGGCAAGGTCATGCTTTTCAGAA
 CGAAAAGGCACAGATGAGCTCTATGCTGTGAAGATCCTGAAGAAGGACGTTGTGATCCAA
 GATGATGACGTGGAGTGCATATGGTGGAGAAGCGGTGTTGGCCCTGCCCGGAAGCCG
 CCCTTCTGACCCAGCTCCACTCCTGCTCCAGACCATGGACCGCCTGTACTTTGTGATG
 GAGTACGTGAATGGGGGCGACCTCATGTATCACATCCAGCAAGTCGGCCGGTTCAAGGAG
 CCCCATGCTGATTTTACGCTGCAGAAATTTGCCATCGGTCTGTTCTTCTTACAGAGTAAG
 GGCATCATTTACCGTGACCTAAAACCTTGACAACGTGATGCTCGATTCTGAGGGACACATC
 AAGATTGCCGATTTTGGCATGTGTAAGGAAAACATCTGGGATGGGGTGACAACCAAGACA
 TTCTGTGGCACTCCAGACTACATCGCCCCGAGATAATTGCTTATCAGCCCTATGGGAAG
 TCCGTGGATTGGTGGCATTTGGAGTCTGCTGTATGAAATGTTGGCTGGGCAGGCACCC
 TTTGAAGGGGAGGATGAAGATGAACTCTCCAATCCATCATGGAACACAACGTAGCCTAT
 CCCAAGTCTATGTCCAAGGAAGCTGTGGCCATCTGCAAAGGGCTGATGACCAACACCCA
 GGCAAACGCTCGGTTGTGGACCTGAAGCGAACGTGATATCAAAGAGCATGCATTTTTC
 CGGTATATTGATTGGGAGAACTTGAACGCAAAGAGATCCAGCCCTTATAAGCCAAAA
 GCTTGTGGGGCAAATGCTGAAAACCTTCGACCGATTTTTACCCCGCATCCACCAGTCCTA
 ACACCTCCCGACCAAGGATCATCAGGAATATTGACCAATCAGAATTCGAAGGATTTTCC
 TTTGTTAACTCTGAATTTTTAAACCCGAAGTCAAGAGCTAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002738 unedited
 AGCCTNTCGCACGAGCACCTCTCGGTCTCCGGCTCCCCGCGCGAAAAGGCTGACCCGGC
 TCGGGGGCCACCGCCGAGCGAGGGCGAGGAGAGACCAGGCGCTTCGCCCGCAAAGGCGC
 CCTCCGGCAGAAGAACGTGCATGAGGTCAAGAACCACAAATTCACCGCCCGCTTCGCTAC
 AGCCACCTTCTGCAGCCTCTGCACCGACTTTATCTGGGGCTTCGGGAAGCAGGGATTCC
 AGTGCCAAGTTTGTGCTTTGTGGTGCACAAGCGGTGCCATGAATTTGTACATTCTCCT
 GCCCTGGCGTGACAAGGGTCCAGCCTCCGATGACCCCCGAGCAAACACAAGTTTAAAGA
 TCCACACGTACTCCAGCCCCACGTTTTGTGACCACTGTGGGTCACTGCTGTATGGACTCA
 TCCACCAGGGGATGAAATGTGACACCTGCATGATGAATGTGACAAGCGTGCATGATGA
 ATGTTCCAGCCTGTGTGGCACGGACCACACGGAGCGCCGCGCCGCATCTACATCCAGG
 CCCACATCGACAGGGACGTCCTCATTGTCTCGGTAAGAGATGCTAAAAACCTTGTACCT
 ATGGACCCCAATGGCCTGTCAAATCCCTACGTTAAACTGAAACTGATTCCTCGATCCCAAA
 GTGAGAGCAAACGGAAAACCCAAACCATCAAATGCTCCCTCAACCCTGAGTGGAATGAGA
 CCATTAGATTTCACTGAAAAAATCGAACAAAGACAGAAGACTGGCATTAGAGATTTGGGA
 TTGGGAATTTGCCCGCGGAAAGACCTTCTGGGATCCTTGGCCTTTGGGAATTTTTAA
 CTTAAAAAAGCCATTGTGGATGGCTGGCTTAAGTTACCTGACCCGGGAGAATGG

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002738 unedited CGCGGCCGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGCATTTGAA CAACAACAGAAACAAAACCCCAAGCAAATAAAGTTTGAATGTAATGTAACCAGGGC CCTTTGGGGCCCTTGCTAGAGTGACTGTGTGTTTCAGAGAGTGGTGCCAAATGCCCTTT TCAAGTAGTTTGGGGATGAGGGTGAGCAAAGACATAAAGTATCAGAACTACAACACTGA GGTAGCACCCAAGCTGGTTGCCCTTTGACCCCTTGAAGTGCTTTTAGATTGAGACCGTCT AAAAGCACATTCTTGAATTTTGAACCTTGATCATCTTAACTTTGAGTTTACAAAATA ACAGATAACATTTTATTTTGAAGCATGTTCTTTTCAAGGTCTGGTGCCTCCAGAACAGGTG AAATAGAGGGATTCTCTTAGGCAAAGCAACCATACACTTGATACAAGCCAAGCTCCAG GCCCGGAAGTGAAGAGTACCGCTAACATCCAATTATCCACAGATTGGATGGTTGGGGGT GAATATGGCAGTGCAGAAAAAGAGGGAAAGAAAGCAGGCATTTTCTCCCCATTGGGTC TACTTAGCTGACATGCTGCGAAAAATAATTGTAAGAGGACTTTGATAATGTGTTAATTA TGCAGTGCATTTCCATAGGCCATCTGCATAATCCCATCTCATAGAGATGCTCCAACT ACCTGAGGACATTTGGNNTCTGAACACTGTCACTCTAGTCTCATAGAAAATCAAACAT GGNATGCACCTGNNCATGAAAACATAAAATGTCCACAATAGCCGTTGAGCTTGATGACA GAATGAAGGACGGAGACTACCATCTACTTAGCTTTGACTTCGGTTTTAAAATCAGAGTA CAAGAAATCCTTCGATCTGATGGNCATATTCTGAGACTTCTGGNCG
Restriction Sites:	NotI-NotI
ACCN:	NM_002738
Insert Size:	2900 bp
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 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
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_002738.5 , NP_002729.2
RefSeq Size:	3411 bp

RefSeq ORF:	2022 bp
Locus ID:	5579
UniProt ID:	P05771
Cytogenetics:	16p12.2-p12.1
Domains:	C2, pkinase, S_TK_X, TyrKc, DAG_PE-bind, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	B cell receptor signaling pathway, Calcium signaling pathway, Chemokine signaling pathway, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, Leukocyte transendothelial migration, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Natural killer cell mediated cytotoxicity, Non-small cell lung cancer, Pathways in cancer, Phosphatidylinositol signaling system, Tight junction, Vascular smooth muscle contraction, VEGF signaling pathway, Vibrio cholerae infection, Wnt signaling pathway
Gene Summary:	<p>Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family members also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play a distinct role in cells. The protein encoded by this gene is one of the PKC family members. This protein kinase has been reported to be involved in many different cellular functions, such as B cell activation, apoptosis induction, endothelial cell proliferation, and intestinal sugar absorption. Studies in mice also suggest that this kinase may also regulate neuronal functions and correlate fear-induced conflict behavior after stress. Alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (2) represents the longer transcript and encodes the longer isoform (2). Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.</p>