

Product datasheet for **RG207217**

PKC beta 1 (PRKCB) (NM_002738) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC beta 1 (PRKCB) (NM_002738) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PKC beta 1
Synonyms:	PKC-beta; PKCB; PKCbeta; PKCI(2); PRKCB1; PRKCB2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG207217 representing NM_002738
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCTGACCCGGCTGCGGGGCCCGCCGAGCGAGGGCGAGGAGACACCGTGCCTTCGCCCGCAAAG
 GCGCCCTCCGGCAGAAGAACGTGCATGAGGTCAAGAACCACAAATTCACCGCCCGCTTCTCAAGCAGCC
 CACCTTCTGCAGCCACTGCACCGACTTCATCTGGGGCTTCGGAAGCAGGGATTCCAGTGCCAAGTTTGC
 TGCTTTGTGGTGCACAAGCGGTGCCATGAATTTGTACATTCTCCTGCCCTGGCGTGACAAGGGTCCAG
 CCTCCGATGACCCCGCAGCAAACACAAGTTAAGATCCACACGTACTCCAGCCACGTTTTGTGACCA
 CTGTGGTCACTGCTGTATGGACTATCCACCAGGGGATGAAATGTGACACCTGCATGATGAATGTGCAC
 AAGCGTCCGTGATGAATGTTCCAGCCTGTGTGGCACGGACCACACGGAGCGCCGCGCCGCATCTACA
 TCCAGGCCACATCGACAGGGACGTCTCATTGTCTCGTAAGAGATGCTAAAACTTGTACCTATGGA
 CCCAATGGCCTGTCAGATCCCTACGTAAGTAACTGAACTGATTCCCGATCCAAAAGTGAGAGCAAACAG
 AAGACAAAACCATCAAATGCTCCCTCAACCTGAGTGAATGAGACATTTAGATTTTCAGCTGAAAAGAT
 CGGACAAAAGACAGAAGACTGTCAGTAGAGATTTGGGATTGGGATTTGACCAGCAGGAATGACTTCATGGG
 ATCTTTGTCTTTGGGATTTCTGAACCTTCAGAAAGCCAGTGTGATGGCTGGTTTAAAGTTACTGAGCCAG
 GAGGAAGGCGAGTACTTCAATGTGCCTGTGCCACCAGAAGGAAGTGAGGCCAATGAAGAAGTGGCCGAGA
 AATTTGAGAGGGCCAAGATCAGTCAGGGAACCAAGGTCCCGGAAGAAAAGACGACCAACACTGTCTCAA
 ATTTGACAACAATGGCAACAGAGACCGGATGAACTGACCGATTTTAACTTCCTAATGGTGTGGGGAAA
 GGCAGCTTTGGCAAGTTCATGCTTTCAGAACGAAAAGGCACAGATGAGCTCTATGCTGTGAAGATCCTGA
 AGAAGGACGTTGTGATCCAAGATGATGACGTGGAGTGCCTATGGTGGAGAAGCGGGTGTGGCCCTGCC
 TGGGAAGCCGCCCTTCTGACCCAGCTCCACTCCTGCTTCCAGACCATGGACCGCCTGTACTTTGTGATG
 GAGTACGTGAATGGGGGCGACCTCATGTATCACATCCAGCAAGTCGGCCGGTTCAAGGAGCCCCATGCTG
 TATTTTACGCTGCAGAAATTGCCATCGGTCTGTTCTTCTTACAGAGTAAGGGCATCATTTACCGTGACCT
 AAAACTTGACAACGTGATGCTCGATTCTGAGGGACACATCAAGATTGCCGATTTTGGCATGTGTAAGGAA
 AACATCTGGGATGGGGTGACAACCAAGACATTCTGTGGCACTCCAGACTACATCGCCCCGAGATAATTG
 CTTATCAGCCCTATGGGAAGTCCGTGGATTGGTGGGCATTTGGAGTCTGCTGTATGAAATGTTGGCTGG
 GCAGGCACCTTTGAAGGGGAGGATGAAGATGAACTCTTCCAATCCATCATGGAACACAACGTAGCCTAT
 CCCAAGTCTATGTCCAAGGAAGCTGTGGCCATCTGCAAAGGGCTGATGACCAAACACCCAGGCAAACGTC
 TGGGTTGTGGACCTGAAGGCGAACGTGATATCAAAGAGCATGCATTTTCCGGTATATTGATTGGGAGAA
 ACTTGAACGCAAAGAGATCCAGCCCTTATAAGCCAAAAGCTTGTGGGCGAAATGCTGAAAACCTTCGAC
 CGATTTTTACCCGCCATCCACCAGTCTAACACCTCCCGACCAGGAAGTCATCAGGAATATTGACCAAT
 CAGAATTCGAAGGATTTCTTTGTTAACTCTGAATTTTTAAACCCGAAGTCAAGAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG207217 representing NM_002738
Red=Cloning site Green=Tags(s)

```
MADPAAGPPPSEGEESTVRFARKGALRQKNVHEVKNHKFTARFFKQPTFCSHCTDFIWGFQKQGFQCQVC
CFVVHKRCHEFVTFSCPGADKGPASDDPRSKHKFKIHTYSPTFCDHCGSLLYGLIHQGMKCDTCMMNVH
KRCVMNVPSLCGTDHTERRGRIYIQAHIDRDVLIIVLVRDAKNLVPMDPNGLSDPYVKLKLIPDPKSESKQ
KTKTIKCSLNPEWNETFRFQLKESDKDRRLSVEIWDWDLTSRNDFMGSLSFGISELQKASVDGWFKLLSQ
EEGEYFNVPVPEGEANEELRQKFERAKISQGTKVPEEKTNTNTVSKFDNNGNRDRMKLTDNFNLMVLGK
GSFGKVMLSERKGTDEL YAVKILKDVVIQDDVECTMVEKRVLALPGKPPFLTQLHSCFQTMDRLYFVM
EYVNGDLMYHIQQVGRFKEPHAVFYAAEIAIGLFFLQSKGIIYRDLKLDNVMLDSEGHIKIADFGMCKE
NIWDGVTTKTFCGTPDYIAPEIIAYQPYGKSVDDWWAFGVLLYEMLAGQAPFEGEDEDLQFSIMEHNVAY
PKSMSKEAVAICKGLMTKHPGKRLGCGPEGERDIKEHAFFRYIDWEKLERKEIQPPYKPKACGRNAENFD
RFFTRHPPVLTTPDQEVIRNIDQSEFEGFSFVNSEFLKPEVKS
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002738

ORF Size: 2019 bp

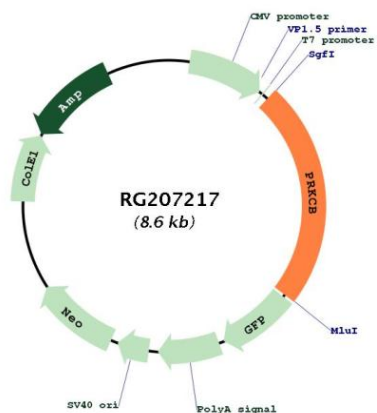
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_002738.7
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>

Product images:



Circular map for RG207217