

## Product datasheet for **RG232523**

### PRKACB (NM\_001242858) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PRKACB (NM\_001242858) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** PRKACB  
**Synonyms:** CAFD2; PKA C-beta; PKACB  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG232523 representing NM\_001242858  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGATTGTTGAAAGAGTTTCTAGCCAAAGCCAAAGAAGACTTTTTGAAAAATGGGAGAATCCA  
ACTCAGAATAATGCCGGACTTGAAGATTTTGAAGGAAAAAACCCCTTGAACAGGTTCAATTTGGAAGAGTCAT  
GTTGGTAAACACAAAGCCACTGAACAGTATTATGCCATGAAGATCTTAGATAAGCAGAAGGTTGTTAA  
CTGAAGCAAATAGAGCATACTTTGAATGAGAAAAGAATATTACAGGCAGTGAATTTCTTTCTTGTTC  
GACTGGAGTATGCTTTAAGGATAATTCTAATTTATACATGGTTATGGAATATGTCCTGGGGTGAAT  
GTTTTACATCTAAGAAGAATTGGAAGGTTCAAGTACAGCCCATGCACGGTCTATGCAGCTCAGATAGT  
CTAACATTCGAGTACCTCCATTCCTAGACCTCATCTACAGAGATCTAAAACCTGAAAATCTCTTAATTG  
ACCATCAAGGCTATATCCAGGTCACAGACTTTGGGTTTGC AAAAGAGTTAAAGGCAGAACTTGGACATT  
ATGTGGAAGTCCAGAGTATTTGGCTCCAGAAAATATTCTCAGCAAGGGCTACAATAAGGCAGTGGATTGG  
TGGCATTAGGAGTGCTAATCTATGAAATGGCAGCTGGCTATCCCCATTCTTGCAGACCAACCAATTC  
AGATTTATGAAAAGATTGTTTCTGAAAAGTCCGATCCCATCCCACTTCAGTTCAGATCTCAAGGACCT  
TCTACGGAACCTGCTGCAGGTGGATTTGACCAAGAGATTGGAATCTAAGAATGGTGTGAGTATATA  
AAAACCTACAAGTGGTTTGCACGACAGATTGGATTGCTATTTACCAGAGGAAGTTGAAGCTCCATTCA  
TACCAAAGTTTAGAGGCTCTGGAGATACCAGCACTTTGATGACTATGAAGAAGAAGATATCCGTGTCTC  
TATAACAGAAAAATGTGCAAAAGAAATTTGGTGAATTT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG232523 representing NM\_001242858  
 Red=Cloning site Green=Tags(s)

MGLLKEFLAKAKEDFLKKWENPTQNNAGLEDFERKKTLTGTSFGRVMLVKHKATEQYYAMKILDKQKVVK  
 LKQIEHTLNEKRILQAVNFPFLVRLEYAFKDNSNLYMMEYVPGGEMFSLRRIIGRFSEPHARFYAAQIV  
 LTFEYLHSLDLIYRDLKPENLLIDHQGYIQVDFGFAKRVKGRWTLCGTPEYLAPEIILSKGYNKAVDW  
 WALGVL IYEMAAGYPPFFADQPIQIYEKIVSGKVRFP SHFSSDLKDLLRNLLQVDLTKRFGNLKNGVSDI  
 KTHKWFATTDWIAIYQRKVEAPFIPKFRSGDTSNFDDYEEEDIRVSITEKCAKEFGEF

TRTRPLE - GFP Tag - V

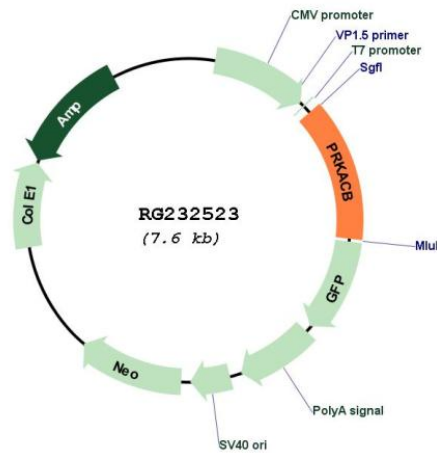
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001242858

**ORF Size:** 1017 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001242858.2</a>
<b>RefSeq Size:</b>	4260 bp
<b>RefSeq ORF:</b>	1020 bp
<b>Locus ID:</b>	5567
<b>UniProt ID:</b>	<a href="#">P22694</a>
<b>Cytogenetics:</b>	1p31.1
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Apoptosis, Calcium signaling pathway, Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Hedgehog signaling pathway, Insulin signaling pathway, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Olfactory transduction, Oocyte meiosis, Prion diseases, Progesterone-mediated oocyte maturation, Taste transduction, Vascular smooth muscle contraction, Vibrio cholerae infection, Wnt signaling pathway
<b>Gene Summary:</b>	The protein encoded by this gene is a member of the serine/threonine protein kinase family. The encoded protein is a catalytic subunit of cAMP (cyclic AMP)-dependent protein kinase, which mediates signalling through cAMP. cAMP signaling is important to a number of processes, including cell proliferation and differentiation. Multiple alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2014]