

## Product datasheet for **MG209156**

### Prkci (NM\_008857) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Prkci (NM_008857) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Prkci
Synonyms:	2310021H13Rik; AI427505; aPKClambda; mKIAA4165; Pkcj; Pkcl; PKClambda; Prkcl
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG209156 representing NM\_008857  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCACACACCGTCCGCTGCGGCGCGCGGGACCATTCCACCAGGTCGGGTGAAAGCCTACTACC  
 GCGGGGATATTATGATAACACACTTTGAGCCTTCCATCTCCTTTGAGGGACTTTGCAGTGAGGTTGAGAG  
 TATGTGTTCTTTTACAATGAGCAGCCGTTCCACATGAAATGGATAGATGAGGAAGGAGACCCATGTACA  
 GTGTCTTCTCAGTTGGAGTTAGAAGAGGCTTTCAGGCTGTACGAGCTGAACAAGGATTCTGAACTTTGA  
 TTCATGTATTTCCATGTGTACCAGAGCGTCTGGAATGCCTTGCCAGGGGAAGACAAGTCCATTTACCG  
 GAGAGGGGCACCGCGTGGAGAAAGCTGTATTGTGCAATGGCCACACTTTTCAAGCCAAACGTTTCAAT  
 AGGCGCGCCACTGTGCCATCTGCACAGACAGAATCTGGGGCCTCGGACGACAAGGATACAAGTGCATCA  
 ACTGCAAACCTGCTGGTTCATAAGAAGTCCACAAGCTGGTCACAATTGAGTGTGGCGGCGACTCTTTGCC  
 ACCGGAACCCATGATGCCAATGGACCAGACCATGCATCCAGACCACACAGACAGTAATTCATATAAT  
 CCTTCAAGTCATGAGAGTTTGGACCAAGTTGGTGAAGAAAAGGAGGCAATGAACACCAGGGAGAGTGGTA  
 AAGCGTCGTCAGTCTAGGTCTGACAGGATTTCCGATTTGCTTCGAGTTATAGGGAGGGGAAGTTACGCCAA  
 AGTACTGTTGGTTCGGTTAAAGAAAACAGATCGCATTTATGCAATGAAAGTTGTGAAGAAAGAGCTCGTC  
 AATGACGATGAGGATATCGATTGGGTGCAGACAGAGAAGCATGTGTTGAGCAGGCGTCCATCACCCCTT  
 TTCTTGTGCGGCTGCATTTCTGCTTCCAGACAGAAAGCAGGTTGTTTTTGTGATAGAATATGTAATGG  
 AGGGGACCTCATGTTTTCATATGCAGCGACAGAGAAAACCTCTGAAGAGCATGCCAGGTTTTACTCTGCA  
 GAAATCAGTCTAGCACTGAATTAATCTTTCATGAGCGAGGGATAATTTATAGAGATTTGAAGTTGGACAATG  
 TACTGCTAGACTCTGAAGGACACATTAACCTACTGACTACGGCATGTGTAAAGGAAGGATGCGGCGCTGG  
 AGACACAACAGCACTTTCTGCGGCACTCCCAATTACATTGCTCCAGAGATCTTAAGAGGAGAAGATTAT  
 GGCTTCAGCGTTGACTGGTGGGCTCTTGGAGTGCATTATGTTTGAAGATGATGGCGGGAAGGCTCCGTTTG  
 ATATCGTTGGGAGCTCTGACAATCTGACCAAAAACACAGAGGATTATCTATTCCAAGTCATTTTGGAAAA  
 GCAGATCCGCATCCCGCTTCTCTGTCTGTAAGCAGCAAGTGTACTGAAGAGTTTTCTCAACAAGGAC  
 CCAAAGGAACGATTGGGTTGTCACCCTCAAACCTGGATTTGCTGACATTCAAGGACATCCATTTCTCAGAA  
 ATGTGGACTGGGACATGATGGAGCAAAAGCAGGTGGTCCACCCTTAAACCAAACATTTCTGGAGAAAT  
 TGGTTTGGATAATTTGATTCTCAGTTTACTAATGAACAGTCCAGCTCACTCCAGATGATGATGACATT  
 GTGAGGAAGATTGATCAGTCTGAATTTGAAGGTTTTGAGTATATCAACCCCTCTTGATGTCTGCAGAAG  
 AGTGTGTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG209156 representing NM\_008857  
 Red=Cloning site Green=Tags(s)

MSHTVACGGGDHSHQVRVKAYYRGDIMITHFEPISFEGLCSEVRDMCSFDFNEQPFTMKWIDEEDPCT  
 VSSQLELEEAFRLYELNKDSELLIHVFPCVPERPGMPCGEDKSIYRRGARRWRKLYCANGHTFQAKRFN  
 RRAHCAICTDRIWGLGRQGYKCINCKLLVHKCHKLVITIECGRHSLPPEPMPMDQTMHPDHTQTVIPYN  
 PSSHESLDQVGEKEAMNTRESGKASSLGLQDFDLRVIGRGSYAKVLLVRLKKTDRITYAMKVVKELV  
 NDDEDIDWVQTEKHVFEQASNHFFLVGLHSCFQTESRLLFFVIEYVNGDLMFHMQRQRKLPPEHARFYSA  
 EISLALNYLHERGIIYRDLKLDNVLLDSEGHKLDYGMCKEGLRPGDSTFCGTPNYIAPEILRGEDY  
 GFSVDWVALGVLMEFMAGRSPFDIVGSSDNDPQNTEDYLFQVILEKQIRIPRSLSVKAASVLSFLNKD  
 PKERLGGHPQTGFADIQGHPPFRNVWDMMEQKQVPPFKPNISGEFGLDNFDSQFTNEPVQLTPDDDDI  
 VRKIDQSEFEGFEYINPLLSAEECV

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

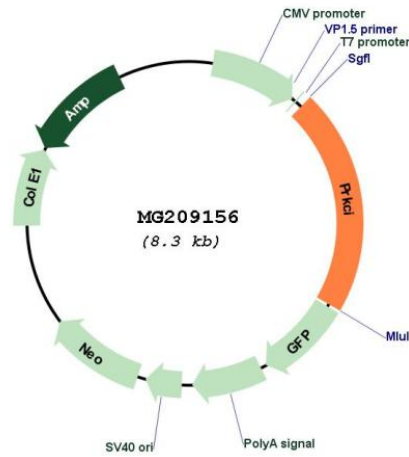
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_008857  
 ORF Size: 1785 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_008857.2</a>
<b>RefSeq Size:</b>	4465 bp
<b>RefSeq ORF:</b>	1788 bp
<b>Locus ID:</b>	18759
<b>UniProt ID:</b>	<a href="#">Q62074</a>
<b>Cytogenetics:</b>	3 14.65 cM

**Gene Summary:**

Calcium- and diacylglycerol-independent serine/ threonine-protein kinase that plays a general protective role against apoptotic stimuli, is involved in NF-kappa-B activation, cell survival, differentiation and polarity, and contributes to the regulation of microtubule dynamics in the early secretory pathway. Is necessary for BCR-ABL oncogene-mediated resistance to apoptotic drug in leukemia cells, protecting leukemia cells against drug-induced apoptosis. In cultured neurons, prevents amyloid beta protein-induced apoptosis by interrupting cell death process at a very early step. In glioblastoma cells, may function downstream of phosphatidylinositol 3-kinase (PI3K) and PDK1 in the promotion of cell survival by phosphorylating and inhibiting the pro-apoptotic factor BAD. Can form a protein complex in non-small cell lung cancer (NSCLC) cells with PARD6A and ECT2 and regulate ECT2 oncogenic activity by phosphorylation, which in turn promotes transformed growth and invasion. In response to nerve growth factor (NGF), acts downstream of SRC to phosphorylate and activate IRAK1, allowing the subsequent activation of NF-kappa-B and neuronal cell survival. Functions in the organization of the apical domain in epithelial cells by phosphorylating EZR. This step is crucial for activation and normal distribution of EZR at the early stages of intestinal epithelial cell differentiation. Forms a protein complex with LLGL1 and PARD6B independently of PARD3 to regulate epithelial cell polarity. Plays a role in microtubule dynamics in the early secretory pathway through interaction with RAB2A and GAPDH and recruitment to vesicular tubular clusters (VTCs). In human coronary artery endothelial cells (HCAEC), is activated by saturated fatty acids and mediates lipid-induced apoptosis (By similarity). Downstream of PI3K is required for insulin-stimulated glucose transport. Activates RAB4A and promotes its association with KIF3A which is required for the insulin-induced SLC2A4/GLUT4 translocation in adipocytes. Is essential in early embryogenesis and development of differentiating photoreceptors by playing a role in the establishment of epithelial and neuronal polarity. Involved in early synaptic long term potentiation phase in CA1 hippocampal cells and short term memory formation (By similarity).[UniProtKB/Swiss-Prot Function]