

## Product datasheet for **MC202828**

### Prkci (NM\_008857) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Prkci (NM_008857) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Prkci
Synonyms:	2310021H13Rik; AI427505; aPKClambda; mKIAA4165; Pkci; Pkcl; PKClambda; Prkcl
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>BC021630 sequence for NM_008857

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 ATGTAATCTGTATTTGTATAATTTTTTTTACATTAATAATCTTTAAATAAAATGTTAATACCTAAAAAAA AAAAAAAAAAAAAAAAAA

- Restriction Sites:** RsrII-NotI
- ACCN:** NM\_008857
- Insert Size:** 1761 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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:** [BC021630](#), [AAH21630](#)

**RefSeq Size:** 4356 bp

**RefSeq ORF:** 1761 bp

**Locus ID:** 18759

**UniProt ID:** [Q62074](#)

**Cytogenetics:** 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]