

## Product datasheet for **MG210017**

### Prkch (NM\_008856) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Prkch (NM_008856) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Prkch
Synonyms:	Pkc; Pkch
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>MG210017 representing NM\_008856  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTCGTCGGCAGCATGAAGTTCAATGGCTATCTGAGGGTCCGCATCGGAGAGGCTGTAGGGCTGCAGC  
CCACCCGCTGGTCCCTGCGGCACTCGCTTTCAAAAAGGGCCACCAGCTGCTGGACCCCTACCTGACGGT  
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TTCCGACCTAGAATCAAATCCCAGAGAAGATGTCAGCAATTTTGAACCCAGACTTTATAAAAAGAGCCCCG  
TCTTAACTCCGATTGATGAGGGACATCTTCTATGATTAACCAGGATGAGTTTAGAACTTTTCTATGT  
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AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

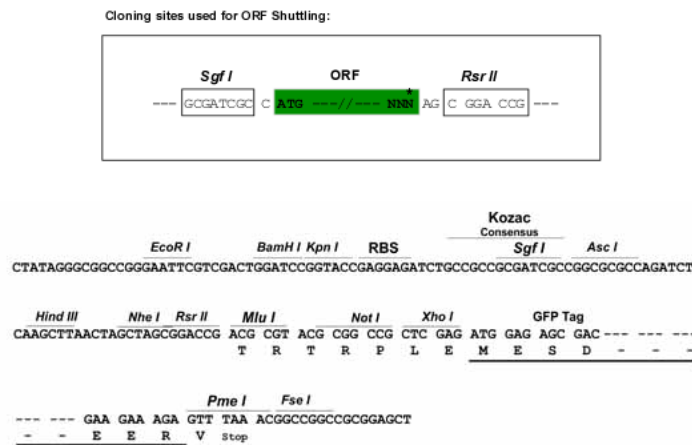
Protein Sequence: >MG210017 representing NM\_008856  
 Red=Cloning site Green=Tags(s)

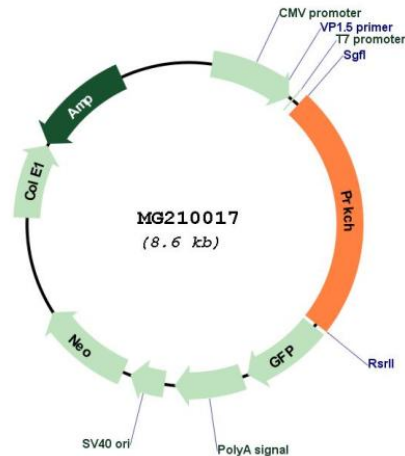
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 TEATLQRDRIFKHFTKRQRAMRRRVHQVNGHKFMATYLRQPTYCSHCREFIWGVFGKQGYQCQVCTCVV  
 HKRCHHLIVTACTCQNNINKVDAKIAEQRFGINIPHKFNVHNYKVPTFCDHCGSLLWGIHQGLQCKICK  
 MNVHIRCQANVAPNCGVNAVELAKTLAGMGLQPGNISPTSKLISRSTLRRQKESKEGNGIGVNSSSRF  
 GIDNFEFIRVLGKGSFGKVMARIKETGELYAVKVLKDVILQDDDVECTMTEKRILSLARNHPFLTQLF  
 CCFQTPDRLFFVMEFVNGDLMFHIQKSRRFDEARARFYAAEIIISALMFLHEKGIYRDLKLDNVLLDHE  
 GHCKLADFGMCKEGICNGVTTATFCGTPDYIAPEILQEMLYGPVDWAMGVLLYEMLCGHAPFEAENED  
 DLFEAILNDEVVYPTWLHEDATGILKSFMTKNPTMRLGSLTQGGHEILRHPFFKEIDWAQLNHRQLEPP  
 FRPRIKSREDSNFDPDFIKEEPVLTPIDEGHLPMINQDEFNFSYVSPQL

SGPTRRRLE - GFP Tag - V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_008856

**ORF Size:** 2049 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:**

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\\_008856.2](#)

**RefSeq Size:** 3301 bp

RefSeq ORF: 2052 bp

Locus ID: 18755

UniProt ID: [P23298](#)

Cytogenetics: 12 C3

**Gene Summary:** Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the 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. It is a calcium-independent and phospholipids-dependent protein kinase. It is predominantly expressed in epithelial tissues and has been shown to reside specifically in the cell nucleus. This protein kinase can regulate keratinocyte differentiation by activating the MAP kinase MAPK13 (p38delta)-activated protein kinase cascade that targets CCAAT/enhancer-binding protein alpha (CEBPA). It is also found to mediate the transcription activation of the transglutaminase 1 (TGM1) gene. Mutations in the human gene are associated with susceptibility to cerebral infarction. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2015]