

## Product datasheet for **MG203604**

### Prkab2 (BC060228) Mouse Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | Prkab2 (BC060228) Mouse Tagged ORF Clone                                   |
| Tag:                      | TurboGFP   |
| Symbol:                   | Prkab2   |
| Synonyms:                 | 5730553K21Rik; AW049591; BB124140  |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)  |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |
| ORF Nucleotide Sequence:  | >MG203604 representing BC060228<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGAAACTACCAGCGAGCGGGTGTCCGGGAGCGCCACGGAGCCAAAGCTGCTCGAGCTGAGGGCG  
GCGGCCATGGCCCGGAAAGGAGCACAAGATCATGGTGGGAGCACGGACGCCAGCCAGCGTCTTCAGCCT  
GCCCGACTCCAAGCTCCCGGGGACAAAGATTTGTACCCTGGCAGCAGGATTTGGATGATTCTGTGAAG  
CCCGCCAGCAGGCCCGCCACCGTTATCCGCTGGTCTGAAGGAGGCAAGGAGGTCTTCATCTCTGGGT  
CCTTCAACAATTGGAGCACAAGATCCCTCTGATAAAGAGTCATAATGACTTCGTTGCCATCCTGGATCT  
TCCAGAGGGAGAGCATCAGTACAAGTCTTTGTGGACGGACAGTGGTTCATGATCCGTCAGAGCCTGTG  
GTTACCAGTCAGCTTGAACAATTAATAACTTGATCCACGTCAAGAAATCTGATTTTGAAGTATTTGACG  
CTTTAAAGTTAGACTCTATGAAAGCTCGGAGACGTATGTCGAGACCTGTCCAGCTCACCCCTGGGCC  
TTACGGTCAAGAAATGTATGTGTTTCGATCTGAGGAGAGATTCAAATCCCACCCATCCTGCCCCCTCAC  
CTACTCCAAGTTATTCTTAACAAGGACACGAATATTTTCATGTGACCCAGCCTTACTTCTGAGCCCAATC  
ATGTTATGCTGAACCATCTATGCACTGTCCATTAAGGACAGTGTGATGGTCTTAGCGCAACCCATCG  
CTACAAGAAGAAGTATGTCACCACGCTGCTGTATAAGCCATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG203604 representing BC060228  
Red=Cloning site Green=Tags(s)

MGNTTSERVSGERHGAKAARAEGGGHGPKEHKIMVGSTDDPSVFSLPDSKLPDKEFVPWQQDLDDSVK  
 PAQARPTVIRWSEGGKEVFISGSFNNWSTKIPLIKSHNDFVAILDLPGEHQYKFFVDGQWVHDPSEPV  
 VTSQLGTINNLIHVKKSDFEVFDALKLDSMESSETSCRDLSSPPPGPYGQEMYVFRSEERFKSPPILPPH  
 LLQVILNKDTNISCDPALLPEPNHVMLNHLIALSIKDSVMVLSATHRYKKKYVTLLLYKPI

TRTRPLE - GFP Tag - V

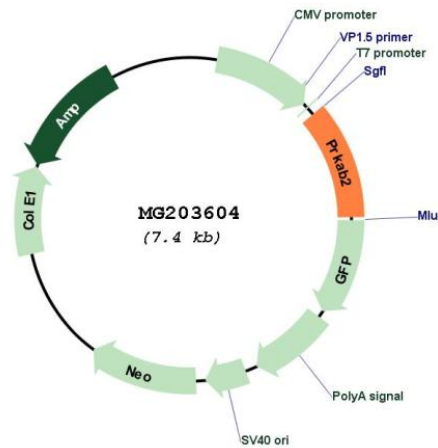
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



**ACCN:** BC060228

**ORF Size:** 815 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="#">BC060228</a> , <a href="#">AAH60228</a>   |
| <b>RefSeq Size:</b>           | 4278 bp   |
| <b>RefSeq ORF:</b>            | 815 bp  |
| <b>Locus ID:</b>              | 108097  |
| <b>Cytogenetics:</b>          | 3 F2.2  |
| <b>Gene Summary:</b>          | Non-catalytic subunit of AMP-activated protein kinase (AMPK), an energy sensor protein kinase that plays a key role in regulating cellular energy metabolism. In response to reduction of intracellular ATP levels, AMPK activates energy-producing pathways and inhibits energy-consuming processes: inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation. AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators. Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton; probably by indirectly activating myosin. Beta non-catalytic subunit acts as a scaffold on which the AMPK complex assembles, via its C-terminus that bridges alpha (PRKAA1 or PRKAA2) and gamma subunits (PRKAG1, PRKAG2 or PRKAG3) (By similarity).[UniProtKB/Swiss-Prot Function] |