

Product datasheet for **MR203604**

Prkab2 (NM_182997) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prkab2 (NM_182997) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prkab2
Synonyms:	5730553K21Rik; AW049591; BB124140
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR203604 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGCATCGCC**

ATGGGAACACTACCAGCGAGCGGGTGTCCGGGAGCGCCACGGAGCCAAAGCTGCTCGAGCTGAGGGCGCGGCCATGGCCCGGAAAGGAGCACAAGATCATGGTGGGAGCACGGACGCCAGCCAGCGTCTTCAGCCTGCCGACTCCAAGCTCCCGGGGACAAAGATTTGTACCCTGGCAGCAGGATTTGGATGATTCTGTGAAGCCCGCCAGCAGGCCCGCCACCGTTATCCGCTGGTCTGAAGGAGGCAAGGAGGTCTTCATCTCTGGTCTTTCAACAATTGGAGCACAAGATCCCTCTGATAAAGAGTCATAATGACTTCGTTGCCATCCTGGATCTCCAGAGGGAGAGCATCAGTACAAGTCTTTGTGGACGGACAGTGGTTCATGATCCGTCAGAGCCTGTGTTACCAGTCAGCTTGAACAATTAATAACTTGATCCACGTCAAGAAATCTGATTTTGAAGTATTTGACGCTTTAAAGTTAGACTCTATGAAAGCTCGGAGACGTCAATGTCGAGACCTGTCCAGCTCACCCCTGGGCCTTACGGTCAAGAAATGTATGTGTTTCGATCTGAGGAGAGATTCAAATCCCACCCATCCTGCCCCCTCACCTACTCCAAGTTATTCTTAACAAGGACACGAATATTTTCATGTGACCCAGCCTTACTTCTGAGCCCAATCATGTTATGCTGAACCATCTATGCACTGTCCATTAAGGACAGTGTGATGGTCTTAGCGCAACCCATCGCTACAAGAAGAAGTATGTCACCACGCTGCTGTATAAGCCATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR203604 protein sequence
 Red=Cloning site Green=Tags(s)

MGNTTSERVSGERHGAKAARAEGGGHGPKEHKIMVGSTDDPSVFLPDSKLPDKEFVPWQQDLDDSVK
 PAQQARPTVIRWSEGGKEVFISGSFNNWSTKIPLIKSHNDFVAILDLPGEHQYKFFVDGQWVHDPSEPV
 VTSQLGTINNLIHVKKSDFEVFDALKLDSMESSETSCRDLSSSPPGPYQEMVFRSEERFKSPPIPPH
 LLQVILNKDNTNISCDPALLPEPNHVMLNHLIALSIKDSVMVL SATHRYKKKYVTLLLYKPI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_182997

ORF Size: 816 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_182997.2](#), [NP_892042.2](#)

RefSeq Size: 4278 bp

RefSeq ORF: 816 bp

Locus ID: 108097

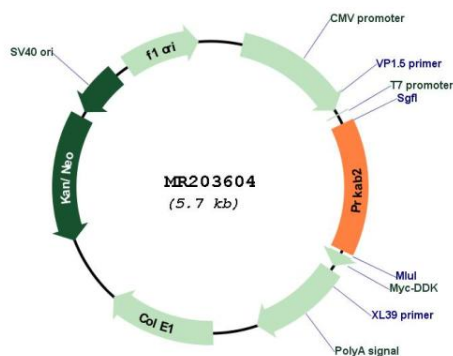
UniProt ID: [Q6PAM0](#)

Cytogenetics: 3 F2.2

MW: 30.2 kDa

Gene Summary: 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]

Product images:



Circular map for MR203604