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Product datasheet for MR203594

Prkab1 (NM_031869) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prkab1 (NM_031869) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prkab1
Synonyms:	1300015D22Rik; AU021155; E430008F22
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR203594 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCAACACGAGCAGCGAGCGCGCCGCGCTGGAGCGGCAGGCGGGCCACAAGACGCCGCGGAGGGACA
GCTCCGGGGGCGCCAAGGATGGGGACAGGCCCAAGATCCTCATGGACAGCCCTGAAGACGCCGACATCTT
CCACTCCGAAGAGATCAAGGCTCCAGAGAAAGAGGAATTCCTGGCCTGGCAGCACGACCTGGAAGCGAAT
GATAAAGCCCCCGCCCAGGCCCGGCCCACCGTGTTTCGATGGACAGGGGGTGGAAAGGAAGTCTACTTGT
CTGGGTCCTTCAACAACTGGAGCAAGCTTCCCCTCACGAGAAGCCAGAATAACTTTGTAGCCATCCTGGA
CCTGCCTGAAGGAGAGCATCAGTACAAGTTCTTCGTGGATGGACAGTGGACCCATGATCCTTCTGAGCCA
ATAGTAACCAGCCAGCTTGGCACAGTTAACAACATCATTCAAGTGAAGAAAACTGACTTTGAAGTATTTG
ATGCTTTAATGGTGGATTCCCAAAAGTGCTCCGATGTGTCTGAGCTGTCCAGCTCGCCCCCAGGACCCTA
CCACCAGGAGCCTTACATGTCTAAACCAGAAGAGAGGTTCAAAGCCCCGCCCATCCTCCCGCCACACCTG
CTGCAGGTCATCTTGAACAAGGACACGGGCATCTCTTGTGACCCAGCACTGCTTCCGGAGCCCAACCACG
TCATGCTGAACCACCTCTATGCACTCTCCATCAAGGATGGAGTGATGGTGCTCAGTGCAACACACCGGTA
CAAGAAAAAGTATGTCACCACCCTCCTCTACAAGCCGATA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

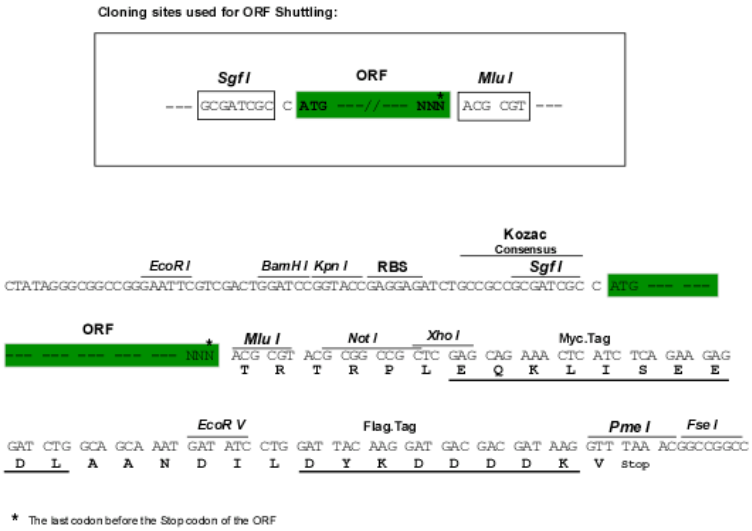
>MR203594 protein sequence
Red=Cloning site Green=Tags(s)

MGNTSSERAALERQAGHKTPRRDSSGGAKDGDRPKILMDSPEDADIFHSEEIKAPEKEEFLAWQHDLEAN
DKAPAQARPTVFRWTGGGKEVYLSGSFNNWSKLPLTRSQNNFVAILDLPEGEHQYKFFVDGQWTHDPSEP
IVTSQLGTVNNIIQVKKTDFEVFDALMVDSQKCSDVSELSSSPPGPYHQEPYMSKPEERFKAPPILPPHL
LQVILNKDTGISCDPALLPEPNHVMLNHLYALSIKDGVMVLSATHRYKKKYVTTLLYKPI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_031869

ORF Size: 813 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_031869.2, NP_114075.1

RefSeq Size: 2051 bp

RefSeq ORF: 813 bp

Locus ID: 19079

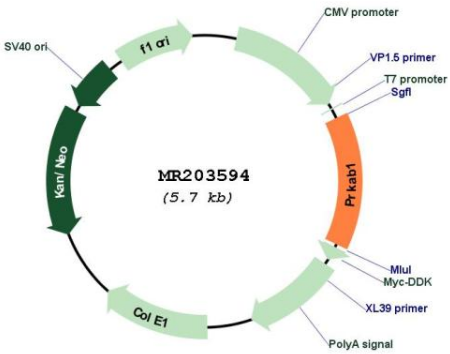
UniProt ID: Q9R078

Cytogenetics: 5 F

MW: 30.3 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 MR203594