

Product datasheet for **SC314038**

PRKAG2 (AJ249976) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRKAG2 (AJ249976) Human Untagged Clone
Tag:	Tag Free
Symbol:	PRKAG2
Synonyms:	AAKG; AAKG2; CMH6; H91620p; WPWS
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for AJ249976, the custom clone sequence may differ by one or more nucleotides

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ATGGGAAGCGCGTTATGGACACCAAGAAGAAAAAGATGTTTCCAGCCCCGGCGGAGC
GGCGGCAAGAAAAATGCCAGCCAGAAGAGGCGTTCGCTGCGCGTGACATTCCGGACCTG
AGCTCCTTCGCCATGCCGCTCCTGGACGGAGACCTGGAGGGTTCCGAAAGCATTCTCT
CGAAAGGTGGACAGCCCCCTCGGCCCGGGCAGCCCCTCAAAGGGTTCTTCTCCAGAGGC
CCCCAGCCCCGGCCCTCCAGCCCATGTCTGCACCTGTGAGGCCAAGACCAGCCCCGGC
TCTCCAAAACCGTGTCCCGTTCCTACCAGGAGTCCCGCCACGCTCCCTCGACGC
ATGAGCTTCAGTGGGATCTTCGCTCCTCCTCAAAGAGTCTTCCCAACTCCAACCT
GCTACCTCGCCCCGGGGCATCAGGTTTTCTCCGCTCCAGAAAAACCTCCGGCCTCTCC
TCCTCTCCGTC AACACCCACCCAAGTGACCAAGCAGCACACGTTTCCCTGGAATCCTAT
AAGCACGAGCCTGAACGGTTAGAGAATCGCATCTATGCCTCGTCTTCCCCCGGACACA
GGCAGAGGTTCTGCCGCTTCTCCTCCAGAGCCCCGACCAGGCCTCCACTGGCATCACCG
ACACACTATGCTCCCTCAAAGCCGCGCGCTGGCGGGCCCTGGGACCCGCGGAAGCC
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TACATGCGATTCATGAGGTCACACAAGTGTATGACATCGTCCAACCAAGTCAAAGCTT
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GTCCGAGCAGCGCACTGTGGGAGAGTAAAAAACAAAGTTTTGTAGGAATGCTAACAAAT
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ATGAAGCAGAACCTGGATGAGCTTGAATAGGAACGTACCACAACATTGCCTTCATACAT
CCAGACACTCCCATCATCAAAGCCTTGAACATATTTGTGGAAGACGAATATCAGCTCTG
CCTGTTGTGGATGAGTCAGGAAAAGTTGTAGATATTTATCCAAATTTGATGTAATTAAT
CTTGCTGCTGAGAAAACATAAATAACCTAGATATCACGGTGACCCAGGCCCTTCAGCAC
CGTTCACAGTATTTTGAAGGTGTTGTGAAGTGAATAAGCTGGAATACTGGAGACCATC
GTGGACAGAAATAGTAAGAGCTGAGGTCCATCGGTTGGTGGTGGTAAATGAAGCAGATAGT
ATTGTGGTATTTTCCCTGTCCGACATTCGCAAGCCCTGATCCTCACACCAGCAGGT
GCCAAACAAAAGGAGACAGAAACGGAG

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Restriction Sites:	Please inquire
ACCN:	AJ249976
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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<ol style="list-style-type: none"> 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:	<u>AJ249976.1</u> , <u>CAB65116.1</u>
RefSeq Size:	2062 bp
RefSeq ORF:	1710 bp
Locus ID:	51422
Cytogenetics:	7q36.1
Domains:	CBS
Protein Families:	Druggable Genome
Protein Pathways:	Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway
Gene Summary:	AMP-activated protein kinase (AMPK) is a heterotrimeric protein composed of a catalytic alpha subunit, a noncatalytic beta subunit, and a noncatalytic regulatory gamma subunit. Various forms of each of these subunits exist, encoded by different genes. AMPK is an important energy-sensing enzyme that monitors cellular energy status and functions by inactivating key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. This gene is a member of the AMPK gamma subunit family. Mutations in this gene have been associated with Wolff-Parkinson-White syndrome, familial hypertrophic cardiomyopathy, and glycogen storage disease of the heart. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jan 2015]