

Product datasheet for **SC322089**

PRKAG2 (NM_024429) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRKAG2 (NM_024429) Human Untagged Clone
Tag:	Tag Free
Symbol:	PRKAG2
Synonyms:	AAKG; AAKG2; CMH6; H91620p; WPWS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for SC322089
GGGAATGACAGTTTGGCTGACAGTCCCGTCAATGGGGGAATCTGCCGAGCTCTGCCTGCAT
TTTGAGCAGCAAAGCAGCTCCAGCCACCAAGACCGTTGCCTGCGCTGTCTTAGGCCAGCC
CATGCTGTCTGCCAGCCGCTTGTGCGCTGCCTTGGGGACTGGGGACACACCCAGCCCCG
GTCCCCATCTGTTGCAGACATGCAGTGGCAGCAGCTCGGAGCACAGCCGAACCCTAGAAA
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GCTGAGACCTGAGCTCCTTCGCCATGCCGCTCCTGGACGGAGACCTGGAGGGTCCGGAA
AGCATTCTCTCGAAAGGTGGACAGCCCTTCGGCCCGGGCAGCCCTCCAAAGGGTTCT
TCTCCAGAGGCCCCAGCCCGGCCCTCCAGCCCATGTCTGCACCTGTGAGGCCAAGA
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ACTCCAACCCTGTACTCTCGCCCGGGGCATCAGGTTTTTCTCCCGCTCCAGAAAAACCT
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TGATCAAAAATAAAATCCACAGATTGCCGTTATTGACCCTATCAGTGGGAATGCACTTT
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AGTATTGTCATACAGTTGAAGAGAAACAATGTTTCCTAATGTAAGTGCTCTGAAAATGTT
GACACTGTATATATATATGAGGATAGTTGTTTTTTTTTGTGTTTTTTTTTTTTTTTTTTT
TCAGATTGAAAAATTAATAAATCCTACTATCTAAAAAAAAAAAAAAAAAAAA

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- Restriction Sites:** Please inquire
- ACCN:** NM_024429
- 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:**
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_024429.1](#), [NP_077747.1](#)

RefSeq Size:	2248 bp
RefSeq ORF:	987 bp
Locus ID:	51422
UniProt ID:	Q9UGJ0
Cytogenetics:	7q36.1
Protein Families:	Druggable Genome
Protein Pathways:	Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (b) contains a distinct 5' UTR and lacks a large in-frame portion of the 5' coding region, compared to variant a. The resulting isoform (b, also referred to as PRKAG2-b) has a much shorter N-terminus when compared to isoform a. Variants b and e encode the same isoform (b).</p>