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Product datasheet for RC200597

PHKG2 (NM_000294) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PHKG2 (NM_000294) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PHKG2
Synonyms:	GSD9C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

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>RC200597 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACGCTGGACGTGGGGCCGGAGGATGAGCTGCCCGACTGGGCCGCCGCCAAAGAGTTTTACCAGAAGT
ACGACCCTAAGGACGTCATCGGCAGAGGAGTGAGCTCTGTGGTCCGCCGTTGTGTTCATCGAGCTACTGG
CCACGAGTTTGCGGTGAAGATTATGGAAGTGACAGCTGAGCGGCTGAGTCCTGAGCAGCTGGAGGAGGTG
CGGGAAGCCACACGGCGAGAGACACACATCCTTCGCCAGGTCGCCGGCCACCCCCACATCATCACCCTCA
TCGATTCCTACGAGTCTTCTAGCTTCATGTTCCTGGTGTTTGACCTGATGCGGAAGGGAGAGCTGTTTGA
CTATCTCACAGAGAAGGTGGCCCTCTCTGAAAAGGAAACCAGGTCCATCATGCGGTCTCTGCTGGAAGCA
GTGAGCTTTCTCCATGCCAACAACATTGTGCATCGAGATCTGAAGCCCGAGAATATTCTCCTAGATGACA
ATATGCAGATCCGACTTTCAGATTTCGGGTTCTCCTGCCACTTGGAACCTGGCGAGAAGCTTCGAGAGTT
GTGTGGGACCCCAGGGTATCTAGCGCCAGAGATCCTTAAATGCTCCATGGATGAAACCCACCCAGGCTAT
GGCAAGGAGGTCGACCTCTGGGCCTGTGGGGTGATCTTGTTCACACTCCTGGCTGGCTCGCCACCCTTCT
GGCACCGGCGGCAGATCCTGATGTTACGCATGATCATGGAGGGCCAGTACCAGTTCAGTTCCCCCGAGTG
GGATGACCGTTCCAGCACTGTCAAAGACCTGATCTCCAGGCTGCTGCAGGTGGATCCTGAGGCACGCCTG
ACAGCTGAGCAGGCCCTACAGCACCCCTTCTTTGAGCGTTGTGAAGGCAGCCAACCCTGGAACCTCACCC
CCCGCCAGCGGTTCCGGGTGGCAGTGTGGACAGTGCTGGCTGCTGGACGAGTGGCCCTAAGCACCCATCG
TGTACGGCCACTGACCAAGAATGCACTGTTGAGGGACCCTTATGCGCTGCGGTCAGTGCGGCACCTCATC
GACAACTGTGCCTTCCGGCTCTACGGGCACTGGGTAAAGAAAGGGGAGCAGCAGAACCGGGCGGCTCTCT
TTCAGCACCGGCCCCCTGGGCCTTTTCCCATCATGGGCCCTGAAGAGGAGGGAGACTCTGCTGCTATAAC
TGAGGATGAGGCCGTGCTTGTGCTGGGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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Protein Sequence:

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>RC200597 protein sequence
Red=Cloning site Green=Tags(s)

MTLDVGPEDELPDWAAAKEFYQKYDPKDVIGRGVSSVVRRCVHRATGHEFAVKIMEVTAERLSPEQLEEV
REATRRETHILRQVAGHPHIITLIDSYESSSFMFLVFDLMRKGELFDYLTEKVALSEKETRSIMRSLLEA
VSFLHANNIVHRDLKPENILLDDNMQIRLSDFGFSCHLEPGEKLRELCGTPGYLAPEILKCSMDETHPGY
GKEVDLWACGVILFTLLAGSPPFWHRRQILMLRMIMEGQYQFSSPEWDDRSSTVKDLISRLLQVDPEARL
TAEQALQHPFFERCEGSQPWNLTPRQRFRVAVWTVLAAGRVALSTHRVRPLTKNALLRDPYALRSVRHLI
DNCAFRLYGHWVKKGEQQNRAALFQHRPPGPFPIMGPEEEGDSAAITEDEAVLVLG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV
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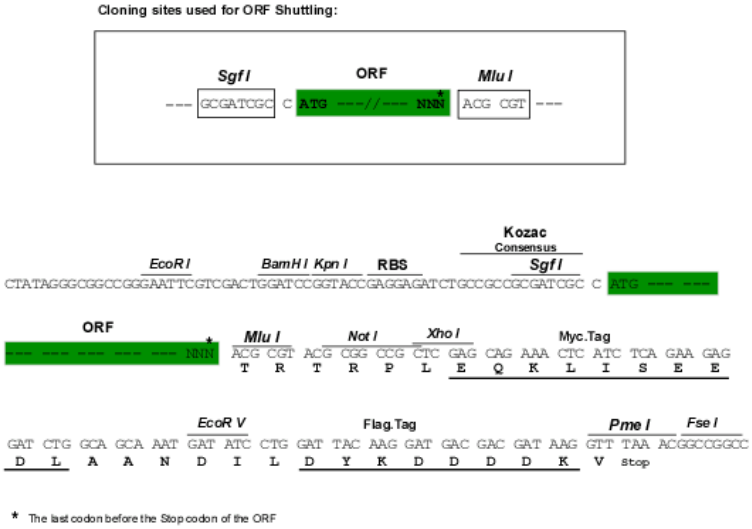
Chromatograms: https://cdn.origene.com/chromatograms/mk6175_b02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000294

ORF Size: 1218 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).

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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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000294.3
RefSeq Size:	5503 bp
RefSeq ORF:	1221 bp
Locus ID:	5261
UniProt ID:	P15735
Cytogenetics:	16p11.2
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Calcium signaling pathway, Insulin signaling pathway
MW:	46.4 kDa
Gene Summary:	Phosphorylase kinase is a polymer of 16 subunits, four each of alpha, beta, gamma and delta. The alpha subunit includes the skeletal muscle and hepatic isoforms, encoded by two different genes. The beta subunit is the same in both the muscle and hepatic isoforms, and encoded by one gene. The gamma subunit also includes the skeletal muscle and hepatic isoforms, and the hepatic isoform is encoded by this gene. The delta subunit is a calmodulin and can be encoded by three different genes. The gamma subunits contain the active site of the enzyme, whereas the alpha and beta subunits have regulatory functions controlled by phosphorylation. The delta subunit mediates the dependence of the enzyme on calcium concentration. Mutations in this gene cause glycogen storage disease type 9C, also known as autosomal liver glycogenosis. Alternatively spliced transcript variants encoding different isoforms have been identified in this gene.[provided by RefSeq, Feb 2010]

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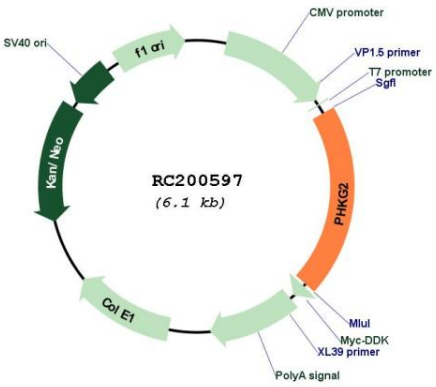
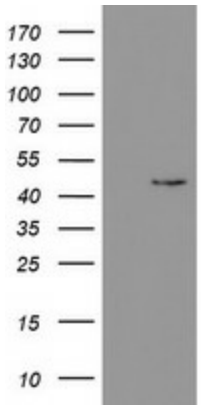
Product images:



Circular map for RC200597



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PHKG2 (Cat# RC200597, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PHKG2(Cat# [TA800355]). Positive lysates [LY400111] (100ug) and [LC400111] (20ug) can be purchased separately from OriGene.

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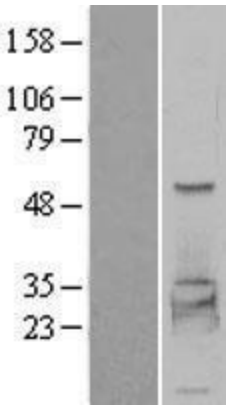

Western blot validation of overexpression lysate (Cat# [LY400111]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200597 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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