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Product datasheet for RC211146

G6PC2 (NM_021176) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	G6PC2 (NM_021176) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	G6PC2
Synonyms:	IGRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC211146 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATTTCCTTCACAGGAATGGAGTGCTCATAATTCAGCATTTGCAGAAGGACTACCGAGCTTACTACA
CTTTTCTAAATTTTATGTCCAATGTTGGAGACCCCAGGAATATCTTTTTCATTTATTTTCCACTTTGTTT
TCAATTTAATCAGACAGTTGGAACCAAGATGATATGGGTAGCAGTCATTGGGGATTGGTTAAATCTTATA
TTTAAATGGATATTATTTGGTCATCGACCTTACTGGTGGGTCCAAGAAACTCAGATTTACCCAAATCACT
CAAGTCCATGCCTTGAACAGTTCCCTACTACATGTGAAACAGGTCCAGGAAGTCCATCTGGCCATGCAAT
GGGCGCATCCTGTGTCTGGTATGTCATGGTAACCGCTGCCCTGAGCCACACTGTCTGTGGGATGGATAAG
TTCTCTATCACTCTGCACAGACTGACCTGGTCATTTCTTTGGAGTGTTTTTTGGTTGATTCAAATCAGTG
TCTGCATCTCCAGAGTATTCATAGCAACACATTTTCCTCATCAAGTTATTCTTGGAGTAATTGGTGGCAT
GCTGGTGGCAGAGGCCTTTGAACACACTCCAGGCATCCAAACGGCCAGTCTGGGCACATACCTGAAGACC
AACCTCTTTCTCTTCCTGTTTGCAGTTGGCTTTTACCTGCTTCTTAGGGTGCTCAACATTGACCTGCTGT
GGTCCGTGCCCATAGCCAAAAAGTGGTGTGCTAACCCCGACTGGATCCACATTGACACCACGCCTTTTGC
TGGACTCGTGAGAAACCTTGGGGTCCTCTTTGGCTTGGGCTTTGCAATCAACTCAGAGATGTTCCTCCTG
AGCTGCCGAGGGGGAAATAACTACACACTGAGCTTCCGGTTGCTCTGTGCCTTGACCTCATTGACAATAC
TGCAGCTCTACCATTTCCTCCAGATCCCGACTCACGAAGAGCATTTATTTTATGTGCTGTCTTTTTGTAA
AAGTGCATCCATTCCCCTAACTGTGGTTGCTTTCATTCCCTACTCTGTTCATATGTTAATGAAACAAAGC
GGAAAGAAGAGTCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC211146 protein sequence
Red=Cloning site Green=Tags(s)

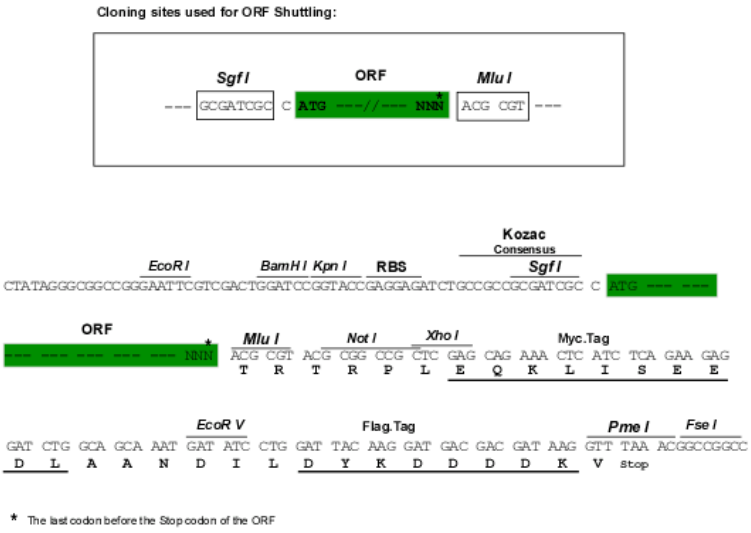
MDFLHRNGVLIIQHLQKDYRAYYTFLNFMSNVGDPRNIFFIYFPLCFQFNQTVGTKMIWVAVIGDWLNLI
FKWILFGHRPYWWVQETQIYPNHSSPCLEQFPTTCETGPGSPSGHAMGASCVWYVMVTAALSHTVCGMDK
FSITLHRLTWSFLWSVFWLIQISVCISRVFIATHFPHQVILGVIGGMLVAEAFEHTPGIQTASLGTYLKT
NLFLFLFAVGFYLLLRVLNIDLLWSVPIAKKWCANPDWIHIDTTPFAGLVRNLGVLFGLGFAINSEMFLL
SCRGGNNYTLSFRLLCALTSLTILQLYHFLQIPTHEEHLFYVLSFCKSASIPLTVVAFIPYSVHMLMKQS
GKKSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6372_h10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021176

ORF Size: 1065 bp

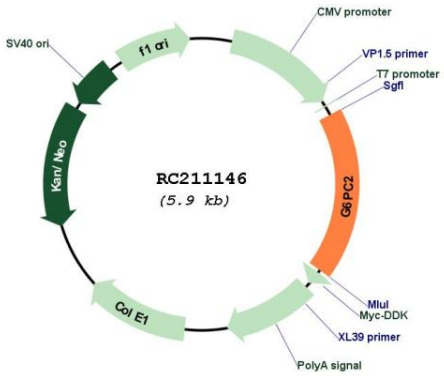
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

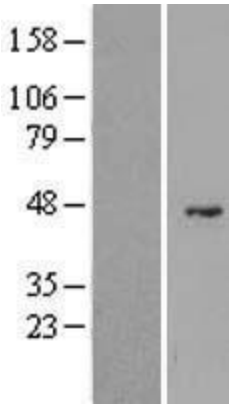
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_021176.3
RefSeq Size:	3096 bp
RefSeq ORF:	1068 bp
Locus ID:	57818
UniProt ID:	Q9NQR9
Cytogenetics:	2q31.1
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Adipocytokine signaling pathway, Galactose metabolism, Glycolysis / Gluconeogenesis, Insulin signaling pathway, Metabolic pathways, Starch and sucrose metabolism
MW:	40.6 kDa
Gene Summary:	This gene encodes an enzyme belonging to the glucose-6-phosphatase catalytic subunit family. These enzymes are part of a multicomponent integral membrane system that catalyzes the hydrolysis of glucose-6-phosphate, the terminal step in gluconeogenic and glycogenolytic pathways, allowing the release of glucose into the bloodstream. The family member encoded by this gene is found in pancreatic islets and does not exhibit phosphohydrolase activity, but it is a major target of cell-mediated autoimmunity in diabetes. Several alternatively spliced transcript variants of this gene have been described, but their biological validity has not been determined. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC211146



Western blot validation of overexpression lysate (Cat# [LY412044]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211146 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).