

Product datasheet for **RG211146**

G6PC2 (NM_021176) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	G6PC2 (NM_021176) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	G6PC2
Synonyms:	IGRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG211146 representing NM_021176 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATTTCTTCACAGGAATGGAGTGCTCATAATTCAGCATTTGCAGAAGGACTACCGAGCTTACTACA
CTTTTCTAAATTTTATGTCCAATGTTGGAGACCCAGGAATATCTTTTCATTTATTTCCACTTTGTTT
TCAATTTAATCAGACAGTTGGAACCAAGATGATATGGGTAGCAGTCATTGGGGATTGGTTAAATCTTATA
TTTAAATGGATATTATTTGGTCATCGACCTTACTGGTGGTCCAAGAACTCAGATTTACCCAAATCACT
CAAGTCCATGCCTTGAACAGTTCCTACTACATGTGAAACAGGTCCAGGAAGTCCATCTGGCCATGCAAT
GGGCGCATCCTGTGTCTGGTATGTCATGGTAACCGCTGCCCTGAGCCACACTGTCTGTGGGATGGATAAG
TTCTCTATCACTCTGCACAGACTGACCTGGTCATTTCTTTGGAGTGTTTTTTGGTTGATTCAAATCAGTG
TCTGCATCTCCAGAGTATTCATAGCAACACATTTTCTCATCAAGTTATTTCTGGAGTAATTGGTGGCAT
GCTGGTGGCAGAGGCCTTTGAACACACTCCAGGCATCCAAACGGCCAGTCTGGGCACATACCTGAAGACC
AACCTCTTTCTCTTCTGTTTGCAGTTGGCTTTTACCTGCTTCTTAGGGTGTCAACATTGACCTGCTGT
GGTCCGTGCCATAGCCAAAAGTGGTGTGCTAACCCGACTGGATCCACATTGACACCAGCCTTTTGC
TGGACTCGTGAGAAACCTTGGGGTCTCTTTGGCTTGGCTTTGCAATCAACTCAGAGATGTTCCCTCTG
AGCTGCCGAGGGGAAATAACTACACACTGAGCTTCCGGTGTCTGTGCCTTGACCTCATTGACAATA
TGCACTCTACCATTTCTCCAGATCCCGACTCAGGAAGAGCATTATTTTATGTGCTGCTTTTGTAA
AAGTGCATCCATTTCCCTAACTGTGGTGTCTTTCATTCCTACTCTGTTTCATATGTTAATGAAACAAAGC
GGAAGAAGAGTCAG

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG211146 representing NM_021176
Red=Cloning site Green=Tags(s)

MDFLHRNGVLI IQHLQKDYRAYYTFLNFMSNVGDPRNIFFIYFPLCFQFNQTVGTKMIWVAVIGDWLNI
 FKWILFGHRPYWVQETQIYPNHSSPCLEQFPTTCETGPGSPSGHAMGASCVWYVMVTAALSHTVCGMDK
 FSITLHRLTWSFLWSVFLIQISVCISRVIATHFPHQVILGVI GGMLVAEAFEHTPGIQTASLGTYLKT
 NLFLFLFAVGFYLLLRVLNIDLWSVPIAKKWCANPDWIHIDTTPFAGLVRNLGVL FGLGFAINSEMFL
 SCRGGNNYTL SFRLLCAL TSLTILQLYHFLQIP THEEHLFYVLSFCK SASIPLTVVAFIPYSVHMLMKQS
 GKKSQ

TRTRPLE - GFP Tag - V

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.

RefSeq: [NM_021176.3](#)

RefSeq Size: 3096 bp

RefSeq ORF: 1068 bp

Locus ID: 57818

UniProt ID: [Q9NQR9](#)

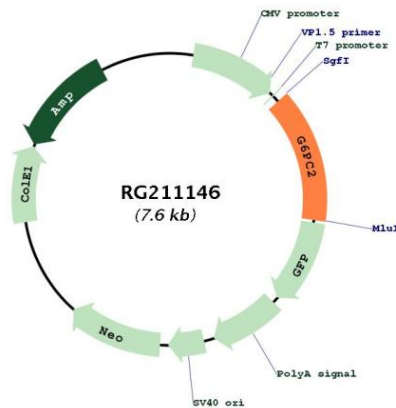
Cytogenetics: 2q31.1

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Adipocytokine signaling pathway, Galactose metabolism, Glycolysis / Gluconeogenesis, Insulin signaling pathway, Metabolic pathways, Starch and sucrose metabolism

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 RG211146