

## Product datasheet for MR223019

### G6pc2 (NM\_021331) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	G6pc2 (NM_021331) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	G6pc2
Synonyms:	G6pc; G6pc-rs; I; IGRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR223019 representing NM_021331 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATTTCTTCATAGGAGTGGAGTGCTTATTATTCATCATCTGCAGGAGGACTACCGGACTTACTATG  
GTTTTCTAAATTTTATGTCCAATGTTGGAGACCCCGAAATATCTTTTCTATTTACTTCCCCTTTGGTT  
TCAGTTGAATCAGAATGTTGGAACCAAGATGATCTGGGTAGCGGTCATAGGGGACTGGTTCAATCTCATA  
TTTAAATGGATATTGTTTGGCCATCGTCCTTACTGGTGGATACAAGAACTGAGATTTATCCAAATCATT  
CAAGCCCATGTCTTGAGCAGTTTCTACTACGTGTGAAACAGGCCAGGAAGTCCATCTGGCCACGCAAT  
GGGCTCATCGTGGTCTGGTATGTCATGGTAACAGCTGCCCTAAGCTACACCATCAGCCGGATGGAGGAG  
TCCTCTGTCACTCTGCACAGACTGACCTGGTCCTTTCTGTGGAGTGTTCCTGGTTGATTCAAATCAGCG  
TCTGCATCTCAAGAGTATTCATAGCCACACATTTCCCCATCAGGTCATTCTTGGAGTGATTGGTGGGAT  
GCTAGTAGCCGAGGCCTTTGAACACACTCCAGGAGTCCACATGGCCAGCTTGAGTGTGTACCTGAAGACC  
AACGTCTTCTCTTCTGTTTGGCCCTCGGCTTTTACCTGCTTCTCCGACTGTTCCGGTATTGACCTGCTGT  
GGTCCGTGCCATCGCCAAAAGTGGTGTGCCAACCCAGACTGGATCCACATTGACAGCACGCCTTTTGC  
TGGACTCGTGAGAAACCTCGGGTCTCTTTGGCTTGGGTTTCCGCATCAACTCAGAAATGTTCTTCCG  
AGCTGCCAGGGAGAAAATGGCACCAAGCCGAGCTTCCGCTTGTCTGTGCTCTGACCTCACTGACCACAA  
TGCAACTTTATCGCTTCATCAAGATCCCGACTCAGCGGAACCTTTATTTTACCTGTTGCTTTCTGTAA  
AAGTGCCTCCATCCCCTGATGGTGGTGGCTCTAATCCCTACTGTGTACATATGTTAATGAGACCCGGT  
GACAAGAAGACTAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR223019 representing NM\_021331  
Red=Cloning site Green=Tags(s)

MDFLHRSGVLIHHLQEDYRTYYGFLNFMNSVGDPRNIFSIYFPLWFQLNQNVGTKMIWVAVIGDWFNLI  
 FKWILFGHRPYWIIQETEIYPNHSSPCLEQFPTTCETGPGSPSGHAMGSSCVWYVMVTAALSYSITRMEE  
 SSVTLHRLTWSFLWSVFLIQISVCISRVIATHFPHQVILGVIIGMLVAEAFEHTPGVHMASLSVYLKT  
 NVFLFLFALGFYLLLRFLGIDLLWSVPIAKKWCANPDWIHIDSTPFAGLVRNLGVLFGLGFAINSEMFLR  
 SCQGENGTKPSFRLLCALTSLTTMQLYRFIKIPTHAELFYLLSFCKSASIPMLMVVALIPYCVHMLMRPG  
 DKKTK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9019\\_g03.zip](https://cdn.origene.com/chromatograms/mm9019_g03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_021331

**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\\_021331.4](#), [NP\\_067306.1](#)

**RefSeq Size:** 2012 bp

**RefSeq ORF:** 1068 bp

**Locus ID:** 14378

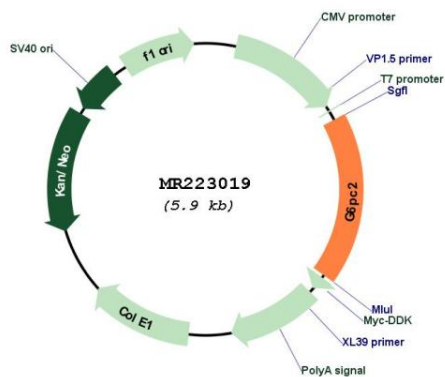
**UniProt ID:** [Q9Z186](#)

**Cytogenetics:** 2 39.66 cM

**MW:** 41.1 kDa

**Gene Summary:** This gene encodes an enzyme that belongs to the glucose-6-phosphatase catalytic subunit family. Members of this family catalyze the hydrolysis of glucose-6-phosphate, the terminal step in gluconeogenic and glycogenolytic pathways, to release glucose into the bloodstream. The family member encoded by this gene is found specifically in pancreatic islets but has not been shown to have phosphotransferase or phosphatase activity exhibited by a similar liver enzyme. The non-obese diabetic (NOD) mouse is a model for human type 1 diabetes, an autoimmune disease in which T lymphocytes attack and destroy insulin-producing pancreatic beta cells. In NOD mice, the protein encoded by this gene is a major target of cell-mediated autoimmunity. Variations in the human and mouse genes are associated with lower fasting plasma glucose levels. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]

Product images:



Circular map for MR223019