

Product datasheet for **MG223019**

G6pc2 (NM_021331) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: G6pc2 (NM_021331) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: G6pc2
Synonyms: G6pc; G6pc-rs; I; IGRP
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG223019 representing NM_021331
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATTTCTTCATAGGAGTGGAGTGCTTATTATTCATCATCTGCAGGAGGACTACCGGACTTACTATG
GTTTTCTAAATTTTATGTCCAATGTTGGAGACCCCGAAATATCTTTTCTATTTACTTCCCACTTTGGTT
TCAGTTGAATCAGAATGTTGGAACCAAGATGATCTGGGTAGCGGTCATAGGGGACTGGTTCAATCTCATA
TTTAAATGGATATTGTTGGCCATCGTCCTTACTGGTGGATACAAGAACTGAGATTTATCCAAATCATT
CAAGCCCATGTCTTGAGCAGTTTCTACTACGTGTGAAACAGGCCAGGAAGTCCATCTGGCCACGCAAT
GGGCTCATCGTGCGTCTGGTATGTCATGGTAACAGCTGCCCTAAGCTACACCATCAGCCGGATGGAGGAG
TCCTCTGTCACTCTGCACAGACTGACCTGGTCCTTTCTGTGGAGTGTTCCTGGTTGATTCAAATCAGCG
TCTGCATCTCAAGAGTATTCATAGCCACACATTTCCCCATCAGGTCATTCTTGGAGTGATTGGTGGGAT
GCTAGTAGCCGAGGCCTTTGAACACACTCCAGGAGTCCACATGGCCAGCTTGAGTGTGTACCTGAAGACC
AACGTCTTCTCTTCTGTTTGGCCCTCGGCTTTTACCTGCTTCTCCGACTGTTCCGGTATTGACCTGCTGT
GGTCCGTGCCATCGCCAAAAGTGGTGTGCCAACCCAGACTGGATCCACATTGACAGCACGCCTTTTGC
TGGACTCGTGAGAAACCTCGGGTCTCTTTGGCTTGGGTTTCGCCATCAACTCAGAAATGTTCTCTCGG
AGCTGCCAGGGAGAAAATGGCACCAAGCCGAGCTTCGGCTTGTCTGTGCTCTGACCTCACTGACCACAA
TGCAACTTTATCGCTTCATCAAGATCCCGACTCAGCGGAACCTTTATTTTACCTGTTGCTTTCTGTAA
AAGTGCCTCCATCCCCTGATGGTGGTGGCTCTAATCCCTACTGTGTACATATGTTAATGAGACCCGGT
GACAAGAAGACTAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG223019 representing NM_021331
 Red=Cloning site Green=Tags(s)

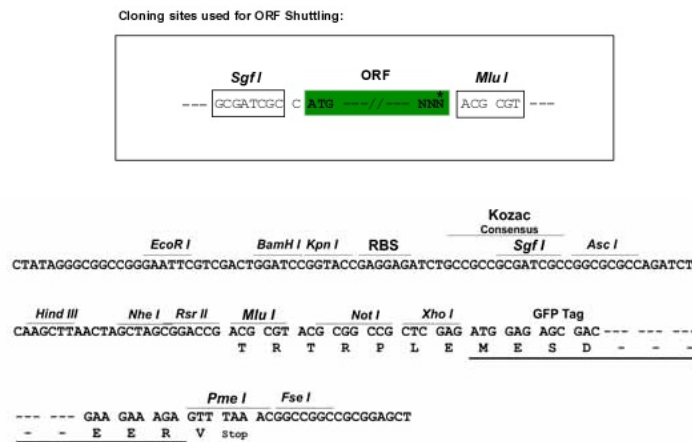
MDFLHRSGLVLIHHLQEDYRYYGFLNFMNSVGDPRNIFSIYFPLWFQLNQNVGTKMIWVAVIGDWFNLI
 FKWILFGHRPYWIIQETEIYPNHSSPCLEQFPTTCETGPGSPSGHAMGSSCVWYVMVTAALSYTISRMEE
 SSVTLHRLTWSFLWSVFLIQUISVCISRVIATHFPHQVILGVIGGMLVAEAFEHTPGVHMASLSVYLKT
 NVFLFLFALGFYLLLRFLGIDLLWSVPIAKKWCANPDWIHIDSTPFAGLVRNLGVLVFLGFAINSEMFLR
 SCQGENGTKPSFRLLCALTSLTTMQLYRFIKIPTHAEPLFYLLSFCKSASIPLMVVALIPYCVHMLMRPG
 DKKTK

TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1498_g04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



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

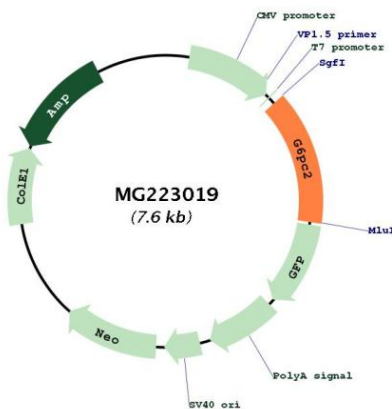
Locus ID: 14378

UniProt ID: [Q9Z186](#)

Cytogenetics: 2 39.66 cM

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 MG223019