

## Product datasheet for MR205458

### G6pc (NM\_008061) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	G6pc (NM_008061) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	G6pc
Synonyms:	AW107337; G6P; G6Pase; G6pc1; G6pt; Glc-6-; Glc-6-Pase
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205458 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGGAAGGAATGAACATTCTCCATGACTTTGGGATCCAGTCGACTCGCTATCTCCAAGTGAATTACC  
AAGACTCCAGGACTGGTTCATCCTTGTGTCTGTGATTGCTGACCTGAGGAACGCCTTCTATGTCCTCTT  
TCCCATCTGGTCCATCTTAAAGAGACTGTGGCATCAATCTCCTCTGGGTGGCAGTGGTCGGAGACTGG  
TTCAACCTCGTCTCAAGTGGATTCTGTTTGGACAACGCCGTATTGGTGGTCTCGACACCGACTACT  
ACAGCAACAGCTCCGTGCCTATAATAAAGCAGTTCCTGTACCTGTGAGACCGGACCAGGAAGTCCCTC  
TGGCCATGCCATGGGCGCAGCAGGTGTACTATGTTATGGTCACTTCTACTCTTGCTATCTTTCGAGGA  
AAGAAAAAGCCAACGTATGGATTCCGGTGTGTAACGTCACTTGTGGTGGGATTCTGGGCTGTGCAGC  
TGAACGTCTGTCTGTCCCGGATCTACCTTGTCTGCTCACTTTCCCAACAGGTCGTGGCTGGAGTCTTGTG  
AGGCATTGCTGTGGCTGAACTTTCAGCCACATCCGGGGCATCTACAATGCCAGCCTCCGGAAGTATTGT  
CTCATCACCATCTTCTTGTGTTTCCGCGTTGGATTCTACCTGCTACTAAAAGGGCTAGGGGTGGACC  
TCCTGTGGACTTTGGAGAAAGCTAAGAGATGGTGTGAGCGGCCAGAATGGGTCCACCTTGACACTACACC  
CTTTGCCAGCCTCTTCAAAAACCTGGGAACCTCTTGGGGTGGGCTGGCCCTCAACTCCAGCATGTAC  
CGGAAGAGCTGCAAGGGAGAAGTCAAGTGGTCTCCATCCGCTTCCGCTGATGTTGGCTTCTTGGCTTGG  
TCCTCCTGCATCTTTGACTCTCTGAAGCCCCATCCAGGTTGAGTTGATCTTCTACATCTTGTCTTT  
CTGCAAGAGCGCAACAGTTCCCTTTGCATCTGTGAGTCTTATCCATACTGCCTAGCCCGGATCCTGGGA  
CAGACACACAAGAAGTCTTTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205458 protein sequence  
 Red=Cloning site Green=Tags(s)

MEEGMNILDHDFGIQSTRYLQVNYQDSQDWFILVSVIADLRNIFYVLPFIWFHLKETVGINLLWVAVVGDW  
 FNLVFKWILFGQRPYWWVLDTDYYSNSSVPIIKQFPVTCETGPGSPSGHAMGAAGVYVMVTSTLAIFRG  
 KKKPTYGFRCLNVILWLGFWAVQLNVCLSRITYLAAHFPHQVVAGVLSGIAVAETFSHIRGIYNASLRKYC  
 LITIFLFGFALGFYLLKGLGVDLLWLEKAKRWCERPEWVHLDTTPFASLFKNLGTLLGLGLALNSSMY  
 RKSCCKGELSKLLPFRFACIVASLVLLHLFDSLKPPSQVELIFYILSFCKSATVVPFASVSLIPYCLARILG  
 QTHKKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_008061

**ORF Size:** 1074 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\\_008061.4](#)

**RefSeq Size:** 2245 bp

**RefSeq ORF:** 1074 bp

**Locus ID:** 14377

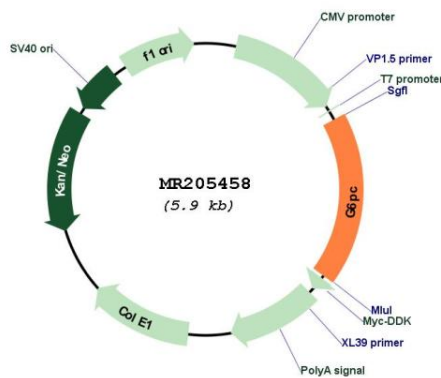
**UniProt ID:** [P35576](#)

**Cytogenetics:** 11 D

**MW:** 40.5 kDa

**Gene Summary:** The enzyme encoded by this gene is a multisubunit integral membrane protein of the endoplasmic reticulum that is composed of a catalytic subunit and transporters for glucose-6-phosphate, inorganic phosphate, and glucose. This gene is one of three glucose-6-phosphatase catalytic-subunit-encoding genes in mouse. Glucose-6-phosphatase catalyzes the hydrolysis of D-glucose 6-phosphate to D-glucose and orthophosphate and is a key enzyme in glucose homeostasis, functioning in gluconeogenesis and glycogenolysis. Mutations in this gene cause glycogen storage disease type I (GSD1). [provided by RefSeq, Sep 2015]

### Product images:



Circular map for MR205458