

Product datasheet for **RG215623**

glucose 6 phosphatase, catalytic subunit (G6PC) (NM_000151) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	glucose 6 phosphatase, catalytic subunit (G6PC) (NM_000151) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	glucose 6 phosphatase, catalytic subunit
Synonyms:	G6Pase; G6PC; G6PT; GSD1; GSD1a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG215623 representing NM_000151 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGAAGGAATGAATGTTCTCCATGACTTTGGGATCCAGTCAACACATTACCTCCAGGTGAATTACC
AAGACTCCAGGACTGGTTCATCTTGGTGTCCGTGATCGCAGACCTCAGGAATGCCTTCTACGTCCTCTT
CCCCATCTGGTTCATCTTCAGGAAGCTGTGGCATTAACTCCTTTGGGTAGCTGTGATTGGAGACTGG
CTCAACCTCGTCTTAAAGTGATTCTCTTTGGACAGCGTCCATACTGGTGGGTTTTGGATACTGACTACT
ACAGCAACACTTCCGTGCCCTGATAAAGCAGTCCCTGTAACCTGTGAGACTGGACCAGGGAGCCCTC
TGGCCATGCCATGGGCACAGCAGGTGTACTAGTGATGGTCACATCTACTCTTCCATCTTTCAGGGA
AAGATAAAGCCGACCTACAGATTTCCGTGCTTGAATGTCATTTTGTGGTTGGGATTCTGGGCTGTGCAGC
TGAATGTCTGTCTGCACGAATCTACCTTGCTGCTCATTTTCTCATCAAGTTGTTGCTGGAGTCCCTGTC
AGGCATTGCTGTTGCAGAACTTTCAGCCACATCCACAGCATCTATAATGCCAGCCTCAAGAAAATATTTT
CTCATTACCTTCTTCTGTTTCAGCTTCGCCATCGGATTTATCTGCTGCTCAAGGGACTGGGTGTAGACC
TCCTGTGGACTCTGGAGAAAGCCAGAGGTGGTGCAGCAGCCAGAATGGGTCCACATTGACACACACC
CTTTGCCAGCCTCCTCAAGAACCTGGGCACGCTCTTTGGCCTGGGGCTGGCTCTCAACTCCAGCATGTAC
AGGGAGAGCTGCAAGGGGAACTCAGCAAGTGGCTCCCATTCGCCTCAGCTCTATTGTAGCCTCCCTCG
TCCTCTGCACGTCTTTGACTCCTTGAACCCCATCCCAAGTCGAGCTGGTCTTCTACGCTTTGTCTTT
CTGCAAGAGTGCGGTAGTGCCCTGGCATCCGTAGTGTATCCCTACTGCCTCGCCAGGTCTCTGGG
CAGCCGCACAAGAAGTCGTTG

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG215623 representing NM_000151
 Red=Cloning site Green=Tags(s)

MEEGMNVLHDFGIQSTHYLQVNYQDSQDWFILVSVIADLRNIFYVLPFIWFHLQEAVGIKLLWVAVIGDW
 LNLVFKWILFGQRPYWWVLDTDYYSNTSVPLIKQFPVTCETGPGSPSGHAMGTAGVYYVMVTSTLSIFQG
 KIKPTYRFRCLNVILWLGFWAVQLNVCLSRIYLAHFPHQVVAGVLSGIAVAETFSHIHSIYNASLKKYF
 LITFFLFSFAIGFYLLKGLGVDLLWLEKAQRWCEQPEWVHIDTTPFASLLKNLGLFGLGLALNSSMY
 RESCKGKLSKWLPFRLSSIVASLVLLHVFDLKKPPSQVELVFYVLSFCKSAVVPLASVSVIPYCLAQVLG
 QPHKKS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000151

ORF Size: 1071 bp

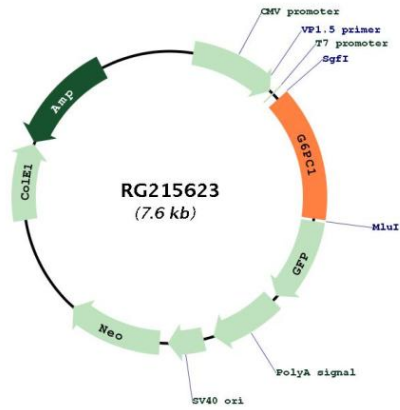
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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_000151.4
RefSeq Size:	3095 bp
RefSeq ORF:	1074 bp
Locus ID:	2538
UniProt ID:	P35575
Cytogenetics:	17q21.31
Domains:	acidPPc
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
Protein Pathways:	Adipocytokine signaling pathway, Galactose metabolism, Glycolysis / Gluconeogenesis, Insulin signaling pathway, Metabolic pathways, Starch and sucrose metabolism
Gene Summary:	<p>Glucose-6-phosphatase (G6Pase) is a multi-subunit integral membrane protein of the endoplasmic reticulum that is composed of a catalytic subunit and transporters for G6P, inorganic phosphate, and glucose. This gene (G6PC) is one of the three glucose-6-phosphatase catalytic-subunit-encoding genes in human: G6PC, G6PC2 and G6PC3. 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). This disease, also known as von Gierke disease, is a metabolic disorder characterized by severe hypoglycemia associated with the accumulation of glycogen and fat in the liver and kidneys. [provided by RefSeq, Feb 2011]</p>

Product images:



Circular map for RG215623