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Product datasheet for SC330823

glucose 6 phosphatase, catalytic subunit (G6PC) (NM_001270397) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: glucose 6 phosphatase, catalytic subunit (G6PC) (NM_001270397) Human Untagged Clone

Tag: Tag Free

Symbol: G6PC1

Synonyms: G6Pase; G6PC; G6PT; GSD1; GSD1a

Vector: pCMV6-Entry (PS100001)

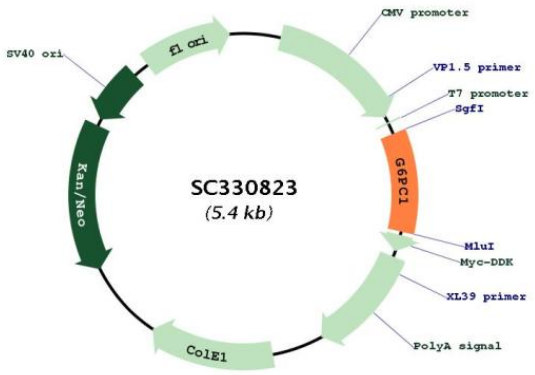
Fully Sequenced ORF:

>SC330823 representing NM_001270397.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGGAGGAAGGAATGAATGTTCTCCATGACTTTGGGATCCAGTCAACACATTACCTCCAGGTGAATTAC
CAAGACTCCCAGGACTGGTTCATCTTGGTGTCCGTGATCGCAGACCTCAGGAATGCCTTCTACGTCCTC
TTCCCCATCTGGTTCCATCTTCAGGAAGCTGTGGGCATTAAACTCCTTTGGGTAGCTGTGATTGGAGAC
TGGCTCAACCTCGTCTTTAAGTGGATTCTCTTTGGACAGCGTCCATACTGGTGGGTTTTGGATACTGAC
TACTACAGCAACACTTCCGTGCCCCTGATAAAGCAGTTCCCTGTAACCTGTGAGACTGGACCAGGGAAA
GATAAAGCCGACCTACAGATTTCGGTGCTTGAATGTCATTTTGTGGTTGGGATTCTGGGCTGTGCAGCT
GAATGTCTGTCTGTCACGAATCTACCTTGCTGCTCATTTTCCTCATCAAGTTGTTGCTGGAGTCCTGTC
AGGCATTGCTGTTGCAGAAACTTTCAGCCACATCCACAGCATCTATAA

Restriction Sites: SgfI-MluI

Plasmid Map:



View online »

ACCN:	NM_001270397
Insert Size:	531 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_001270397.1
RefSeq Size:	4092 bp
RefSeq ORF:	531 bp
Locus ID:	2538
UniProt ID:	P35575
Cytogenetics:	17q21.31
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
MW:	20.2 kDa

Gene Summary:

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]
Transcript Variant: This variant (2) lacks an internal segment in the coding region, which results in a frameshift, compared to variant 1. The resulting isoform (2) has a shorter and distinct C-terminus, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.