

Recombinant Human G6PC

Cat. No. G6PC-27523TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human glucose-6-phosphatase, catalytic subunit with a N-terminal proprietary tag. Mol Wt 65.34 kDa inclusive of tag.
Species	Human
Source	Wheat Germ
ProteinLength	357 amino acids
Description	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.
Molecular Weight	65.340kDa inclusive of tags
Form	Liquid
Purity	Proprietary Purification

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Storage buffer	pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MEEGMNVLHDFGIQSTHYLQVNYQDSQDWFILSVIADLR NAFYVLFPIWFHLQEAV GIKLLWVAVIGDWLNLVFKWILF GQRPYWWVLDTDYYSNTSVPLIKQFPVTCETGP GSPSGHA MGTAGVYYVMVTSTLSIFQGKIKPTYRFRCNLNVLWLGFW AVQLNVCLS RIYLAAHFPHQVVAGVLSGIAVAETFSHIHS IYNASLKKYFLITFFLFSFAIGFYLLKGL GVDLLWTLEK AQRWCEQPEWVHIDTTPFASLLKNLGTFLGGLALNSSMY RESCK GKLSKWLPFRLSSIVASLVLLHVFDLKPSPQVEL VFYVLSFCKSAVVPLASVSVIPY CLAQVLGQPHKKSL
Sequence Similarities	Belongs to the glucose-6-phosphatase family.

GENE INFORMATION

Gene Name	G6PC glucose-6-phosphatase, catalytic subunit [Homo sapiens]
Official Symbol	G6PC
Synonyms	G6PC; glucose-6-phosphatase, catalytic subunit; G6PT, glucose 6 phosphatase, catalytic (glycogen storage disease type I, von Gierke disease); glucose-6-phosphatase; glycogen storage disease type I; von Gierke disease; GSD1a;
Gene ID	2538
mRNA Refseq	NM_000151
Protein Refseq	NP_000142

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MIM	613742
Uniprot ID	P35575
Chromosome Location	17q21
Pathway	Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; Carbohydrate digestion and absorption, organism-specific biosystem; Carbohydrate digestion and absorption, conserved biosystem; FOXA2 and FOXA3 transcription factor networks, organism-specific biosystem;
Function	glucose-6-phosphatase activity; hydrolase activity; phosphate ion binding; phosphotransferase activity, alcohol group as acceptor;

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