

# Recombinant Full Length Human G6PC Protein

**Cat. No.** G6PC174HF    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Product Overview</b> | Recombinant full length Human glucose-6-phosphatase, catalytic subunit with a N-terminal proprietary tag. Mol Wt 65.34 kDa inclusive of tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>           | In Vitro Cell Free System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | 357 amino acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>      | 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. |
| <b>Form</b>             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Molecular Mass</b>   | 65.340kDa inclusive of tags                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>AA Sequence</b>      | MEEGMNVLHDFGIQSTHYLQVNYQDSQDWFILSVIADLR NAFYVLFPIWFHLQEAV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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GIKLLWVAVIGDWLNLVFKWILF GQRPYWWVLDTDYYSNTSVPLIKQFPVTCETGP  
 GSPSGHA MGTAGVYYVMVTSTLSIFQGKIKPTYRFRCLNVILWLGFV AVQLNVCLS  
 RIYLAHFPHQVVAGVLSGIAVAETFSHIHS IYNASLKKYFLITFFLFSFAIGFYLLKGL  
 GVDLLWTLEK AQRWCEQPEWVHIDTTPFASLLKNLGTFLGLALNSSMY RESCK  
 GKLSKWLPFRLSSIVASLVLLHVFDLKPSPQVEL VFYVLSFCKSAVVPLASVSVIPY  
 CLAQVLGQPHKKS

**Purity** Proprietary Purification

**Storage** Shipped on dry ice. Upon delivery aliquot and store at -80 centigrade. Avoid freeze / thaw cycles.

**Storage Buffer** pH: 8.00. Constituents:0.79% Tris HCl, 0.31% Glutathione.

## 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

**MIM** 613742

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UniProt ID

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