

# Recombinant Full Length Human G6PD Protein, GST-tagged

**Cat. No.** G6PD-5127HF    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Human G6PD full-length ORF ( NP_001035810.1, 1 a.a. - 515 a.a.) recombinant protein with GST-tag at N-terminal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | In Vitro Cell Free System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>    | 515 amino acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>      | This gene encodes glucose-6-phosphate dehydrogenase. This protein is a cytosolic enzyme encoded by a housekeeping X-linked gene whose main function is to produce NADPH, a key electron donor in the defense against oxidizing agents and in reductive biosynthetic reactions. G6PD is remarkable for its genetic diversity. Many variants of G6PD, mostly produced from missense mutations, have been described with wide ranging levels of enzyme activity and associated clinical symptoms. G6PD deficiency may cause neonatal jaundice, acute hemolysis, or severe chronic non-spherocytic hemolytic anemia. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq] |
| <b>Molecular Mass</b>   | 85.7 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>AA Sequence</b>      | MAEQVALSRTQVCGLREELFQGDAFHQSDTHIFIIMGASGDLAKKKIYPTIWWLFRD<br>GLLPENTFIVGYARSRLTVADIRKQSEPPFKATPEEKLLKLEDDFFARNSYVAGQYDDAA<br>SYQRLNSHMNALHLGSQANRLFYLALPPTVYEAVTKNIHESCMSQIGWNRIIVEKPF<br>GRDLQSSDRLSNHISSLFREDQIYRIDHYLGKEMVQNLMLVLRFANRIFGPIWNRDNIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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CVILTFKEPFGTEGRGGYFDEFGIIRDVMQNHLLQMLCLVAMEKPASTNSDDVRDEK  
VKVLKCISEVQANNVVLGQYVGNPDGEGEATKGYLDDPTVPRGSTTATFAAVVLYV  
ENERWDGVPFILRCGKALNERKAEVRLQFHDVAGDIFHQQCKRNELVIRVQPNEAV  
YTKMMTKKPGMFFNPEESELDTYGNRYKNVKLPDAYERLILDVFCGSQMHFVRSD  
ELREAWRIFTPLLHQIELEKPKPIPIYIGSRGPTEADELMKRVGFQYEGTYKWVNP  
KL

**Applications**

Enzyme-linked Immunoabsorbent Assay  
Western Blot (Recombinant protein)  
Antibody Production  
Protein Array

**Notes**

Best use within three months from the date of receipt of this protein.

**Storage**

Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

**Storage Buffer**

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

## GENE INFORMATION

**Gene Name**

G6PD glucose-6-phosphate dehydrogenase [ Homo sapiens ]

**Official Symbol**

G6PD

**Synonyms**

G6PD; glucose-6-phosphate dehydrogenase; glucose-6-phosphate 1-dehydrogenase; G6PD1; glucose-6-phosphate dehydrogenase, G6PD;

**Gene ID**

2539

**mRNA Refseq**

NM\_000402

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|                |           |
|----------------|-----------|
| Protein Refseq | NP_000393 |
| MIM            | 305900    |
| UniProt ID     | P11413    |

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