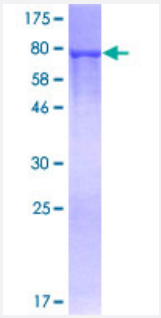
Full-Length

G6PD (Human) Recombinant Protein (P01)

Catalog # H00002539-P01 Size 25 ug, 10 ug

Applications



Specification

Product Description	Human G6PD full-length ORF (NP_001035810.1, 1 a.a. - 515 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MAEQVALSRTQVCGILREELFQGDAFHQSDTHIFIIMGASGDLAKKKIYPTIWWLFRDGLLPENTFIV GYARSRLTVADIRKQSEPFFKATPEEKLKLEDFFARNSYVAGQYDDAASYQRLNSHMNALHLGSQ ANRLFYLALPPTVYEAVTKNIHESCMSQIGWNRIIVEKPFGRDLQSSDRLSNHISSLFREDQIYRIDHY LGKEMVQNLMVLRFANRIFGPIWNRDNIACVILTFKEPFGTEGRGGYFDEFGIIRDVMQNHLLQMLC LVAMEKPASTNSDDVRDEKVKVLKCISEVQANNVVLGQYVGNPDGEGEATKGYLDDPTVPRGS TTATFAAVVLYVENERWDGVPFILRCGKALNERKAEVRLQFHDVAGDIFHQQCKRNELVIRVQPN EAVYTKMMTKKPGMFFNPEESELDLTYGNRYKNVKLPDAYERLILDVFCGSQMHFVRSDELREA WRIFTPLLHQIELEKPKPIPYIYGSRGPTEADELMKRVGFQYEGTYKWVNPHKL
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	85.7
Preparation Method	*in vitro* wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

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

Gene Info — G6PD

Entrez GeneID	2539
GeneBank Accession#	NM_001042351.1
Protein Accession#	NP_001035810.1
Gene Name	G6PD
Gene Alias	G6PD1
Gene Description	glucose-6-phosphate dehydrogenase
Omim ID	305900
Gene Ontology	Hyperlink
Gene Summary	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
Other Designations	OTTHUMP00000026034|glucose-6-phosphate 1-dehydrogenase|glucose-6-phosphate dehydrogenase, G6PD

Pathway

- Biosynthesis of alkaloids derived from histidine and purine
- Biosynthesis of plant hormones
- Glutathione metabolism
- Metabolic pathways
- Pentose phosphate pathway

Disease

- alpha-Thalassemia
- Anemia
- beta-Thalassemia
- Birth Weight
- Cardiovascular Diseases
- Coronary Disease
- Diabetes Mellitus
- Diabetic Ketoacidosis
- Disease Susceptibility
- Edema
- Elliptocytosis
- Encephalitis
- Favism
- Genetic Predisposition to Disease
- Gilbert Disease
- Glucosephosphate Dehydrogenase Deficiency

- Glycogen Storage Disease Type I
- Hemoglobinuria
- Hemolysis
- Hyperbilirubinemia
- Jaundice
- Lymphoma
- Malaria
- Metabolism
- Parasitemia
- Sickle Cell Trait
- Stroke
- Syndrome
- Thalassemia
- Wounds and Injuries