

Glucose-6-Phosphate Dehydrogenase Active Protein | G6PD active protein

Recombinant E Coli Glucose-6-Phosphate Dehydrogenase

CATALOG # AAA38735	HOST E Coli
------------------------------	-----------------------

PRODUCT SYNONYMS

Glucose-6-Phosphate Dehydrogenase; Recombinant E Coli Glucose-6-Phosphate Dehydrogenase; G6PD E.Coli; Glucose-6-Phosphate Dehydrogenase E.coli Recombinant; G6PD; G6PD1; Glucose-6-phosphate 1-dehydrogenase; G6PD active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90.0% as determined by SDS-PAGE.
Form/Format	The G6PD protein contains 50mM MES 6.0, 0.1mM PMSF, 2mM EDTA, 0.5mM DTT and 10% glycerol. Sterile filtered colorless solution.
Sequence	MAVTQTAQAC DLVIFGAKGD LARRKLLPSL YQLEKAGQLN PDTRIIGVGR ADWDKAAYTK VVREALETFM KETID EGLWD TLSARLDFCN LDVNDTAAFS RLGAMLDQKN RITINYFAMP PSTFGAICKG LGEAKLNAKP ARVVM EKPLG TSLATSQ EIN DQVGEYFE EC QVYRIDHYLG KETVLNLLAL RFANSLFVNN WDNRTIDHVE ITVAEEVGIE GRWGYFDKAG QMRDMIQNHL LQILCMIAMS PPSDLSADSI RDEKVKVLKS LRRIDRSNVR EKTVRGQYTA GFAQGKKVPG YLEEEGANKS SNTETFVAIR VDIDNWRWAG VPFYLR TGKR LPTKCSEVVV YFKTPELNLF KESWQDLPQN KLTIRLQPDE GVDIQVLNKV PGLDHKHN LQ ITKLDLSYSE TFNQTHLADA YERLLLETMR GIQALFVRRD EYEEAWKWVD SITEAWAMDN DAPKPYQAGT WGPVASVAMI TRDGRSWNEF E
Sequence Length	545
Biological Activity	Specific activity is 8-10 units/ml obtained by measuring the increase of NADPH in absorbance at 340 nm resulting from the reduction of NAD or NADP. One unit oxidizes 1.0 umole D-glucose-6-phosphate to 6-phospho-D-gluconate per min in the presence of beta-NADP at pH 7.4 at 25C.
Preparation and Storage	Store at 4 degree C if entire vial will be used within 2-4 weeks. Store, frozen at -20 degree C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for G6PD active protein	Description: G6PD E Coli Recombinant produced in E Coli is a single, non-glycosylated polypeptide chain containing 491 amino acids and having a molecular mass of 55.7kDa. The G6PD is purified by proprietary chromatographic techniques. Introduction: G6PD is the rate-limiting enzyme of the pentose phosphate pathway, a metabolic pathway that supplies reducing energy to cells by maintaining the level of NADPH. G6PD converts glucose-6-phosphate into 6-phosphoglucono-?-lactone and at the same time produces NADPH. The NADPH maintains the level of glutathione in these cells that helps protect the red blood cells against oxidative damage. G6PD deficiency causes acute hemolytic anemia, neonatal jaundice or acute hemolysis. G6PD is a cytosolic enzyme encoded by an X-linked gene whose main function is to produce NADPH, a crucial electron donor in the defense against oxidizing agents and in reductive biosynthetic reactions. G6PD produces pentose sugars for nucleic acid synthesis and is a main producer of NADPH reducing power.
Product Categories/Family for G6PD active protein	Enzymes; Dehydrogenase

NCBI AND UNIPROT INFORMATION

NCBI GI #	109389365
NCBI GeneID	2539
NCBI Accession #	NP_000393.4
NCBI GenBank Nucleotide #	NM_000402.4
UniProt Accession #	P11413; Q16000; Q16765; Q8IU70; Q8IU88; Q8IUA6; Q96PQ2; D3DWX9
Molecular Weight	62,468 Da
NCBI Official Full Name	glucose-6-phosphate 1-dehydrogenase isoform a
NCBI Official Synonym Full Names	glucose-6-phosphate dehydrogenase
NCBI Official Symbol	G6PD
NCBI Official Synonym Symbols	G6PD1
NCBI Protein Information	glucose-6-phosphate 1-dehydrogenase
UniProt Protein Name	Glucose-6-phosphate 1-dehydrogenase
UniProt Gene Name	G6PD
UniProt Synonym Gene Names	G6PD
UniProt Entry Name	G6PD_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/e-coli-g6pd-active-protein/glucose-6-phosphate-dehydrogenase/38735>