

G6PD active protein

G6PD,1-491aa, E Coli, E Coli (Bioactivity Validated)

CATALOG # AAA48520	HOST E Coli	APPLICATIONS SDS-Page
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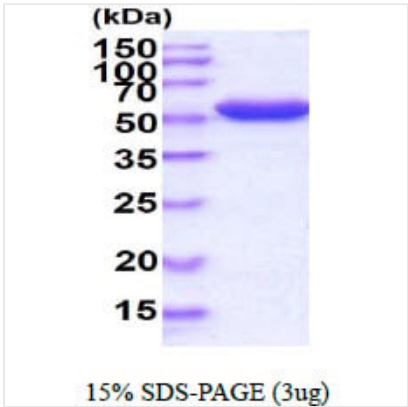
PRODUCT SYNONYMS

G6PD; 1-491aa; E Coli; E Coli (Bioactivity Validated); Glucose-6-phosphate 1-dehydrogenase; zwf; Glucose-6-phosphate 1-dehydrogenase G6PD; G6PD1; G6pdx; Glucose 6 phosphate 1 dehydrogenase; MET19; POS10; Zwf1p.; G6PD active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	> 95% by SDS-PAGE
Form/Format	In 50 mM MES 6.0, 0.1 mM PMSF, 2 mM EDTA, 0.5 mM DTT, 10% glycerol
Concentration	1 mg/ml (determined by Bradford assay) (varies by lot)
Sequence	MAVTQTAQAC DLVIFGAKGD LARRKLLPSL YQLEKAGQLN PDTRIIGVGR ADWDKAAYTK VVREALETFM KETID EGLWD TLSARLDFCN LDVNDTAAFS RLGAMLDQKN RITINYFAMP PSTFGAICKG LGEAKLNAKP ARVVM EKPLG TSLATSQ EIN DQVGEYFEEC QVYRIDHYLG KETVLNLLAL RFANSLFVNN WDNRTIDHVE ITVAEEVGIE GRWGYFDKAG QMRDMIQ NHL LQILCMIAMS PPSDLSADSI RDEKVKVLKS LRRIDRSNVR EKTVRGQYTA GFAQGKKVPG YLEEEGANKS SNTETFVAIR VIDNWRWAG VPFYLRTGKR LPTKCSEVVV YFKTPELNLF KESWQDLPQN KLTIRLQPDE GVDIQVLNKV PGLDHKHNLQ ITKLDLSYSE TFNQTHLADA YERLLLETMR GIQALFVRRD EVEEAWKWVD SITEAWAMDN DAPKPYQAGT WGPVASVAMI TRDGRSWNEF E
Sequence Length	491
Applicable Applications for G6PD active protein	SDS-PAGE
Antigen Species	E Coli
Biological Activity	Specific activity is > 70 units/mg obtained by measuring the increase of beta-NADPH in absorbance at 340 nm resulting from the reduction of beta-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	Can be stored at 4 degree C short term (1-2 weeks). For long term storage, aliquot and store at -20 degree C or -70 degree C. Avoid repeated freezing and thawing cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for G6PD active protein	Glucose-6-phosphate dehydrogenase (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-delta-lactone and simultaneously produce NADPH. The NADPH in turn maintains the level of glutathione in these cells that helps protect the red blood cells against oxidative damage. G6PD deficiency cause acute hemolytic anemia. Recombinant G6PD protein was expressed in E Coli and purified by conventional chromatography techniques.
Product Categories/Family for G6PD active protein	Enzymes & Proteases
References	Huang Y., et al. (2008) Mol Genet Metab. 93 (1):44-53.; Zimny A., et al. (2003) Pol Arch Med Wewn. 110 (5):1327-33;

NCBI AND UNIPROT INFORMATION

NCBI GI #	16129805
NCBI GeneID	946370
NCBI Accession #	NP_416366
NCBI GenBank Nucleotide #	NC_000913.3
UniProt Accession #	P0AC53; P22992; P78069; Q60134; Q60139
Molecular Weight	55.7kDa (491 aa), confirmed by MALDI-TOF.
NCBI Official Full Name	glucose-6-phosphate 1-dehydrogenase
NCBI Official Symbol	zwf
NCBI Official Synonym Symbols	ECK1853; JW1841
NCBI Protein Information	glucose-6-phosphate 1-dehydrogenase
UniProt Protein Name	Glucose-6-phosphate 1-dehydrogenase
UniProt Gene Name	zwf
UniProt Synonym Gene Names	EDF

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.