

Recombinant *E.coli* G6PD

CATALOG #:	6367-100	100 µg
ALTERNATE NAMES:	Glucose-6-phosphate 1-dehydrogenase, Zwf, Glucose-6-phosphate dehydrogenase, G6PD1	
SOURCE:	<i>E.coli</i>	
FORM:	Liquid	
PURITY:	≥ 95% by SDS-PAGE	
MOL. WEIGHT:	55.7 kDa (491 aa, 1-491 aa)	
FORMULATION:	In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol, 0.1 mM PMSF, 2 mM EDTA, 0.5 mM DTT	

STORAGE CONDITIONS:

Can be stored at 4 °C short term (1-2 weeks). For long term storage, aliquot and store at -20 °C or -70 °C. Avoid repeated freezing and thawing cycles.

DESCRIPTION:

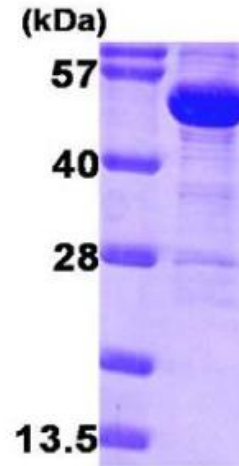
Glucose-6-phosphate dehydrogenase is the rate-limiting enzyme of the pentose phosphate pathway, a metabolic pathway that supplies reducing energy to cells by maintaining the level of NADPH. G6PD converts glucose-6-phosphate into 6-phosphoglucono-delta-lactone and simultaneously produce NADPH. The NADPH 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.

AMINO ACID SEQUENCE:

MAVTQTAQAC DLVIFGAKGD LARRKLLPSL YQLEKAGQLN PDTRIIGVGR ADWDKAAAYTK
VVREALETFM KETIDGLWD TLSARLDFCN LDVNDTAAFS RLGAMLDQKN RITINYFAMP
PSTFGAICKG LGEAKLNAKP ARVVMKPLG TSLATSQEIN DQVGEYFEEC QVYRIDHYLG
KETVLNLLAL RFANSLFVNN WDNRTIDHVE ITVAEEVGIE GRWGYFDKAG QMRDMIQNH
LQILCMIAMS PPSDLSADSI RDEKVKVLKS LRRIDRSNVR EKTVRGQYTA GFAQGGKVP
YLEEEGANKS SNTETFVAIR VDIDNWRWAG VPFYLRGGR LPTKCSEVVV YFKTPELNLF
KESWQDLPQN KLTIRLQDE GVDIQVLNKV PGLDHKHNQ ITKLDLSYSE TFNQTHLADA
YERLLLETMR GIALFVRRD EVEEAWKWVD SITEAWAMDN DAPKPYQAGT
WQRYAGVAM TDRDQWNEE F

BIOLOGICAL ACTIVITY:

Specific activity is > 50 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 25 °C.



15% SDS-PAGE (4µg)

Human Recombinant G6PD

RELATED PRODUCTS:

- Glucose-6-Phosphate Dehydrogenase Activity Assay Kit (Cat. No. K757-100)
- DHEA (Cat. No. 2172-100, -500)
- Human recombinant UGDH (Cat. No. 6368-50)

FOR RESEARCH USE ONLY! Not to be used in humans.

