Active Recombinant E. coli zwf Protein

Cat. No. zwf-01E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant E. coli zwf Protein (1-491aa) without tag was expressed in E. coli.
Species	E.coli
Source	E.coli
ProteinLength	1-491 a.a.
Description	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.
Form	Liquid
Bio-activity	Specific activity is > 50 unit/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 centigrade.
Molecular Mass	55.7 kDa
AA Sequence	MAVTQTAQACDLVIFGAKGDLARRKLLPSLYQLEKAGQLNPDTRIIGVGRADWDKAA

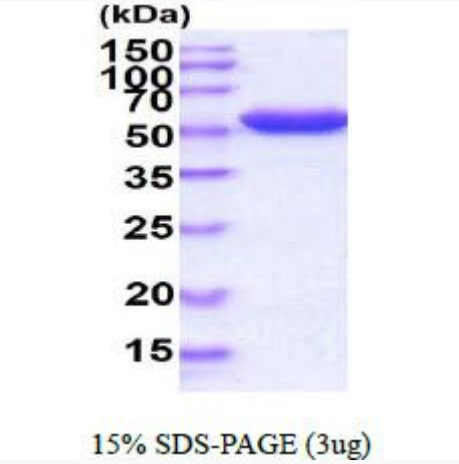
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	YTKVVREALETFMKETIDEGLWDTLSARLDFCNLDVNDTAAFSRLGAMLDQKNRITIN YFAMPPSTFGAICKGLGEAKLNAKPARVVMEKPLGTSLATSQEINDQVGEYFEECQV YRIDHYLGKETVLNLLALRFANSLFVNNWDNRTIDHVEITVAEEVGIEGRWGYFDKA GQMRDMIQNHLLQILCMIAMSPPSDLSADSIRDEKVKVLKSLRRIDRSNVREKTVRG QYTAGFAQGKKVPGYLEEEGANKSSNTETFVAIRVDIDNWRWAGVPFYLRTGKRLP TKCSEVVVYFKTPELNLFKESWQDLPQNKLTIRLQPDEGVDIQVLNKVPGLDHKHNL QITKLDLSYSETFNQTHLADAYERLLLETMRGIQALFVRRDEVEEAWKWVDSITEAW AMDNDAPKPYQAGTWGPVASVAMITRDGRSWNEFE
Purity	> 95% by SDS-PAGE
Applications	Enzyme Activity, SDS-PAGE
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	1mg/ml (determined by Bradford assay)
Storage Buffer	Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol, 0.1mM PMSF, 2mM EDTA, 0.5mM DTT

GENE INFORMATION

Gene Name	zwf NADP(+)-dependent glucose-6-phosphate dehydrogenase [Escherichia coli str. K-12 substr. MG1655]
Official Symbol	zwf
Synonyms	zwf; NADP(+)-dependent glucose-6-phosphate dehydrogenase; ECK1853; NADP(+)-dependent glucose-6-phosphate dehydrogenase; EC 1.1.1.49; Glucose-6-phosphate 1-dehydrogenase; Glucose-6-phosphate 1-dehydrogenase; Glucose-6-phosphate 1-

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	dehydrogenase G6PD; G6PD1; G6pdx; Glucose 6 phosphate 1 dehydrogenase; MET19; POS10; Zwf1p
Gene ID	946370
Protein Refseq	NP_416366
UniProt ID	P0AC53
SDS-PAGE	 15% SDS-PAGE (3ug) 3 μg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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