

## Product datasheet for **AR09140PU-N**

### G6PD (1-491) Escherichia coli Protein

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	G6PD (1-491) e. coli recombinant protein, 0.1 mg
<b>Species:</b>	Escherichia coli
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	MAVTQTAQAC DLVIFGAKGD LARRKLLPSL YQLEKAGQLN PDTRIIGVGR ADWDKAAATK VVREALETFM KETIDEGGLWD TLSARLDFCN LDVNDTAAFS RLGAMLDQKN RITINYFAMP PSTFGAICKG LGEAKLNAKP ARVVMKPLG TSLATSQEIN DQVGEYFEEC QVYRIDHYLG KETVLNLLAL RFANSLFVNN WDNRTIDHVE ITVAEEVGIE GRWGYFDKAG QMRDMIQNHLLQILCMIAMSPPSDLSADSI RDEKVKVLKS LRRIDRSNVR EKTVRGQYTA GFAQGKKVPG YLEEEGANKS SNTETFVAIR VDIDNWRWAG VPFYLRTGKR LPTKCSEVVV YFKTPELNLF KESWQDLPQN KLTIRLQPDE GVDIQVLNKV PGLDHKHNLQ ITKLDLSYSE TFNQTHLADAYERLLETMR GIQALFVRRD EVEEAWKWVD SITEAWAMDN DAPKPYQAGT WGPVASVAMITRDGRSWNEF E
<b>Predicted MW:</b>	55.7 kDa
<b>Concentration:</b>	lot specific
<b>Purity:</b>	>90% by SDS - PAGE
<b>Buffer:</b>	Presentation State: Purified State: Liquid purified protein Buffer System: 50 mM MES 6.0, 0.1 mM PMSF, 2 mM EDTA, 0.5 mM DTT, 10% glycerol
<b>Bioactivity:</b>	Biological: 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 25°C.
<b>Preparation:</b>	Liquid purified protein
<b>Protein Description:</b>	Recombinant G6PD protein was expressed in E.coli and purified by conventional chromatography techniques.
<b>Storage:</b>	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.



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**Summary:**

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.

**Product images:**