
Product Data Sheet

Product Name: PGD Human
 Cat. No.: GP22077
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	EC 1.1.1.44; 6PGD; PGDH; 6-phosphogluconate dehydrogenase decarboxylating; PGD.		
Amino Acid Sequence	<p>MGSSHHHHH SSGLVPRGSH MAQADIALIG LAVMGQNLIL NMNDHGFVVC AFNRTVSKVD DFLANEAKGT KVVGAQSLKE MVSKLKKPRR IILLVKAGQA VDDFIEKLVP LLDTGDIID GGNSEYRDTT RRCRDLKAKG ILFVGSGVSG GEEGARYGPS LMPGGNKEAW PHIKTIFQGI AAKVGTGEP C DWVGDEGAG HFVKMVHNGI EYGDMQLICE AYHLMKDV LG MAQDEMAQAF EDWNKTELDS FLIEITANIL KFQDTDGKHL LPKIRDSAGQ KGTGKWTAIS ALEYGVPVTL IGEAVFARCL SSLKDERIQA SKKLKGPQKF QFDGDKKSFL EDIRKALYAS KIISYAQGF M LLRQAATEFG WTLNYGGIAL MWRGGCIIRS VFLGKIKDAF DRNPELQNL LDDFFKSAVE NCQDSWRRAV STGVQAGIPM PCFTTALS FY DGYRHEMLPA SLIQAQRDYF GAHTYELLA K PGQFIHTNWT GHGGTVSSSS YNA.</p>		
Formulation	The PGD solution contains 20mM Tris-HCl pH-8, 1mM DTT, 0.1M NaCl and 10% glycerol.		

Introduction

6PGD is the second dehydrogenase in the pentose phosphate shunt. Pentose is necessary for nucleic acid biosynthesis. The pentose phosphate cycle is a major source of NADPH. 6PGD deficiency is usually asymptomatic, and the inheritance of this disorder is autosomal dominant. PGD deficiency raises the erythrocyte pyruvate kinase levels of activity and decreases glutathione synthetase, resulting in hemolysis.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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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.

Background

PGD Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 503 amino acids (1-483 a.a.) and having a molecular mass of 55.3 kDa. The PGD is fused to a 20 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

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