

PGD, 1-483aa, Human, His tag, E.coli

Cat.NO.: TP03375

3th Edition

Synonyms: Phosphogluconate dehydrogenase, 6PGD

Description: PGD (Phosphogluconate dehydrogenase), also known as 6PGD, is a 483 amino acid enzyme that is involved in the pentose phosphate shunt. Pentose is required for nucleic acid biosynthesis and the pentose phosphate cycle is a major source of NADPH. PGD deficiency increases the level of erythrocyte pyruvate kinase (PK) activity and reduces glutathione synthetase (GSH), resulting in hemolysis. Defects in PGD are generally asymptomatic and are inherited in an autosomal dominant fashion. Recombinant human PGD protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

Form: Liquid. In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 0.1M NaCl, 10% glycerol

Molecular Weight: 55.3 kDa (503aa)

Sequences:

MGSSHHHHHSSGLVPRGSHMAQADIALIGLAVMGQNLIINMNDHGFVVCANRTVSKVDDFLANEAKGTKVVGA
QSLKEMVSKLKKPRRIILLVKAGQAVDDFIEKLVPLLDTGDIIDGGNSEYRDTRRCRDLKAKGILFVSGVSGGEEG
ARYGPSLMPGGNKEAWPHIKTIFQGIAAKVGTGEPCCDWVGDEGAGHFVKMVHNGIEYGDMQLICEAYHLMKDV
GMAQDEMAQAFEDWNKTELDSFLIEITANILKFQD TDGKHLLPKIRDSAGQKGTGKWT AISALEYGVPTLIGEA
VFA RCLSSLKDERIQASKKLKGPQKFQFDGDKSFLEDIRKALYASKIISYAQGFMLLRQAATEFGWTLNYGGIALM
WRG GCIIRSVFLGKIKDAFDRNPELQNL LDDFFKSAVENCQDSWRRAVSTGVQAGIPMPCFTTALSFYDGYRHE
MLPAS LIQAQRDYFGAHTYELLAKPGQFIHTNWTGHGGTVSSSSYNA

Purity: > 95% by HPLC

Concentration: 1 mg/ml (determined by Bradford assay)

Endotoxin Level: <1.0 EU per 1 ug of protein (determined by LAL method)

Storage: 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.