OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

AR51993PU-S Human PGD / PGDH (1-483, His-tag) - Purified

Alternate names: 6-phosphogluconate dehydrogenase decarboxylating

Quantity: 20 µg

Concentration: 1.0 mg/ml (determined by bradford assay)

Background: PGD (Phosphoglucote dehydroges), 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 DPH. PGD deficiency increases the level of erythrocyte pyruvate kise (PK) activity and reduces glutathione synthetase (GSH), resulting in hemolysis. Defects in PGD are generally asymptomatic and are inherited in an autosomal domint fashion. Recombint human PGD protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventiol chromatography techniques.

Uniprot ID: P52209

NCBI: NP_002622

GeneID: 5226

Species: Human

Source: E. coli

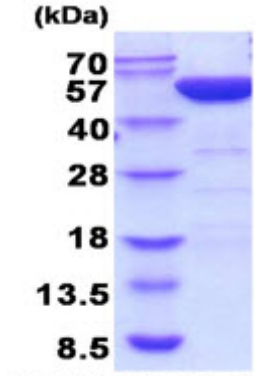
Format:
State: Liquid purified protein
Purity: >90% by SDS - PAGE
Buffer System: 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 0.1M Nacl, 10% glycerol.

Description:
AA Sequence:
MGSSHHHHHH SSGLVPRGSH MAQADIALIG LAVMGQNLIL NMNDHGFVVC AFNRTVSKVD
DFLANEAKGT KVVGAQSLKE MVSKLKKPRR IILLVKAGQA VDDFIEKLVP LLDTGDIIID
GGNSEYRDTT RRCRDLKAKG ILFVGSGVSG GEEGARYGPS LMPGGNKEAW PHIKTIFQGI
AAKVGTGEPC CDWVGDEGAG HFVKMVHNGI EYGDMQLICE AYHLMKDVLG MAQDEMAQAF
EDWNKTELDS FLIEITANIL KFQDTDGKHL LPKIRDSAGQ KGTGKWTAIS ALEYGVPVTL
IGEAVFARCL SSLKDERIQA SKKLKGPQKF QFDGDKKSFL EDIRKALYAS KIISYAQGFM
LLRQAATEFG WTLNYGGIAL MWRGGCIIRS VFLGKIKDAF DRNPELQNLL LDDFFKSAVE
NCQDSWRRAV STGVQAGIPM PCFTTALSFY DGYRHEMLPA SLIQAQRDYF GAHTYELLAK
PGQFIHTNWT GHGGTVSSSS YNA
Specific Activity: Specific activity is > 10 units/mg, in which one unit oxidize 1.0 umole of 6-phospho-D-gluconate to D-ribulose 5-phosphate per minute at pH 8.0 at 25C, in the presence of ß-NADP.
Molecular weight: 55.3 kDa (503aa)

Storage: Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings: Le TD., et al. (2010) Proc Natl Acad Sci U S A. 107(7):3198-203. Tagen M., et al. (2009) J Immunol. 183(10):6313-9.

Pictures:



15% SDS-PAGE (3ug)