

32-6881: PGD Human, Active

Application : Functional Assay

Alternative Name : EC 1.1.1.44, 6PGD, PGDH, 6-phosphogluconate dehydrogenase decarboxylating, PGD.

Description

Source: Escherichia Coli.

Sterile Filtered colorless solution.

6PGD is the 2nd dehydrogenase in the pentose phosphate shift. Pentose is crucial for the biosynthesis of nucleic acid. The pentose phosphate cycle is a prominent Source: of NADPH. 6PGD deficiency is mostly asymptomatic, and the inheritance of this deasis is autosomal dominant. PGD deficiency elevate the erythrocyte pyruvate kinase levels of activity & decreases glutathione synthetase, which causes hemolysis.

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

Product Info

Amount : 2 µg / 10 µg

Purification : Greater than 90.0% as determined by SDS-PAGE.

Content : The PGD solution (1mg/ml) contains 10% Glycerol, 1mM DTT, 0.1M NaCl, and 20mM Tris-HCl buffer (pH 8.0).

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

Amino Acid : MGSSHHHHHH SSGLVPRGSH MAQADIALIG LAVMGQNLIL NMNDHGFVVC AFNRTVSKVD
DFLANEAKGT KVVGAQSLKE MVSKLKKPRR IILLVKAGQA VDDFIEKLVP LLDTGDIID GGNSEYRDTT
RRCRDLKAKG ILFVGSVSG GEEGARYGPS LMPGGNKEAW PHIKTIFQGI AAKVGTGEP
CDWVGDEGAG HFVKMVHNGI EYGDMQLICE AYHLMKDV LG MAQDEMAQAF EDWNKTELDS
FLIEITANIL KFQDTDGKHL LPKIRDSAGQ KGTGKWT AIS ALEYGVPVTL IGEAVFARCL SSLKDERIQA
SKKLGKPKF QFDGDKSFL EDIRKALYAS KIISYAQGM LLRQAATEFG WTLNYGGIAL MWRGGCIIRS
VFLGKIKDAF DRNPELQNL L LDDFFKSAVE NCQDSWRRV STGVQAGIPM PCFTTALSFY
DGYRHEMLPA SLIQAQRDYF GAHTYELLAK PGQFIHTNWT GHGGTVSSSS YNA A

Application Note

Specific activity is > 10unit/mg. One unit will oxidize 1.0 umole of 6-phospho-D-gluconate to D-ribulose 5- phosphate per minute at pH 8.0 at 25°C, in the presence of beta-NADP.