TPI1, human recombinant

CATALOG NO: P1097-10 10 µg
P1097-50 50 µg

ALTERNATE NAMES: triosephosphate isomerase, TPI

CONCENTRATION: 0.5 mg/ml (determined by Bradford assay)

SOURCE: *E.coli* expressed TPL1 recombinant protein was fused to His-tag at N-terminus (1-249aa).

PURITY: > 95% by SDS-PAGE

MOL. WEIGHT: This protein is fused with 6x His tag at N terminus and the protein has a calculated MW of 28.8 kDa (269aa). Protein runs at 28-40 kDa in SDS-PAGE under reducing conditions.

FORM: Liquid

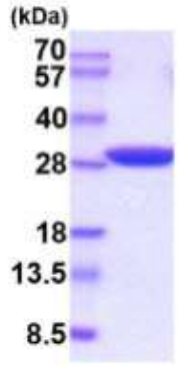
FORMULATION: In 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol, 1mM DTT

STORAGE CONDITIONS: Store at +4°C for short term (1-2 weeks). For long term storage, aliquot and store at -70°C. Avoid repeated freeze/thaw cycles.

SEQUENCE: MGSSHHHHHH SSGLVPRGSH MAPSRKFFVG GNWKMNGRKQ SLGELIGTLN AAKVPADTEV VCAPPTAYID FARQKLDPKI AVAAQNCYKV TNGAFTGEIS PGMIKDCGAT WVVLGHSERR HVFGESDELI GQKVAHALAE GLGVIACIGE KLDEREAGIT EKVVFEQTKV IADNVKDWSK VVLAYEPVWA IGTGKTATPQ QAQEVHEKLR GWLKSNVSDA VAQSTRIIYG GSVTGATCKE LASQPDVDGF LVGGASLKPE FVDIINAKQ

DESCRIPTION: TPI1 (Triosephosphate isomerase) belongs to the triosephosphate isomerase family. TPI1 catalyzes the isomerization of glyceraldehydes 3-phosphate (G3P) and dihydroxy-acetone phosphate (DHAP) in glycolysis and gluconeogenesis. Defects in TPI1 are the cause of triosephosphate isomerase deficiency (TPI deficiency). TPI deficiency is an autosomal recessive disorder. It is the most severe clinical disorder of glycolysis. It is associated with neonatal jaundice, chronic hemolytic anemia, progressive neuromuscular dysfunction, cardiomyopathy and increased susceptibility to infection. Recombinant human TPI1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

BIOLOGICAL ACTIVITY: Specific activity is >3000 units/mg, in which one unit will convert 1.0 umole of D-glyceraldehyde-3-phosphate to dihydroxyacetone phosphate per minute at pH 7.5 at 25C.



15% SDS-PAGE (3ug)

Human recombinant TPI1

RELATED PRODUCT:

- Active PAK4 **(Cat. No. 7707-5)**
- Human Recombinant ALDH2 **(Cat. No. 6332-100)**
- Human Recombinant Hexokinase 1 **(Cat. No. 6309-50)**
- Human Recombinant Hexokinase 2 **(Cat. No. 6308-50)**

FOR RESEARCH USE ONLY! Not to be used on humans.