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AR09702PU-N Human Triosephosphate isomerase (TPI1) (1-249, His-tag) - Purified

Alternate names: TIM, TPI, Triose-phosphate isomerase

Quantity: 0.1 mg

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

Background: 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.

Uniprot ID: P60174

NCBI: NP_000356

GeneID: 7167

Species: Human

Source: E. coli

Format:
State: Liquid purified protein
Purity: >95%
Buffer System: 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol, 1mM DTT

Description: Recombinant human TPI1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
AA 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
Molecular weight: 28.8 kDa (269aa) confirmed by MALDI-TOF

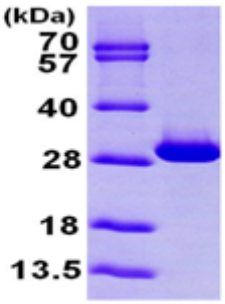
Storage: Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:
1. Maquat LE, Chilcote R, Ryan PM. Human triosephosphate isomerase cDNA and protein structure. Studies of triosephosphate isomerase deficiency in man. J Biol Chem. 1985 Mar 25;260(6):3748-53. PubMed PMID: 2579079.
2. Rodríguez-Almazán C, Arreola R, Rodríguez-Larrea D, Aguirre-López B, de Gómez-Puyou MT, Pérez-Montfort R, et al. Structural basis of human triosephosphate isomerase deficiency: mutation E104D is related to alterations of a conserved water

network at the dimer interface. J Biol Chem. 2008 Aug 22;283(34):23254-63. doi: 10.1074/jbc.M802145200. Epub 2008 Jun 18. PubMed PMID: 18562316.

Pictures:

Recombinant human TPI1, 1-249aa, His-tagged



15% SDS-PAGE (3ug)