

AR09702PU-L**Human Triosephosphate isomerase (TPI1) (1-249, His-tag) - Purified****Alternate names:** TIM, TPI, Triose-phosphate isomerase**Quantity:** 0.5 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 dihydroxyacetone 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 WVLVGHSEER
HVFGESEDELI 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.

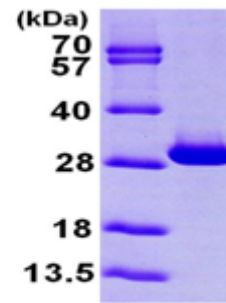
General Readings:

- 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.
- 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)