Recombinant TPIS protein (His tag)

Catalog Number	531632
Synonyms	TIM; Methylglyoxal synthase; Triose-phosphate isomerase
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q10657
Gene ID	174844
Molecular Weight	Predictes a molecular mass of 28.23 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	1-247
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-247 aa (Q10657) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Triosephosphate Isomerase (TIM) fragment from Caenorhabditis elegans, encompassing residues 1-247. This highly efficient metabolic enzyme fragment is ideal for studying glycolysis, gluconeogenesis, and methylglyoxal production mechanisms in biochemical and structural research applications. Triosephosphate isomerase is a critical metabolic enzyme that catalyzes the reversible interconversion between dihydroxyacetone phosphate (DHAP) and D-glyceraldehyde-3-phosphate (G3P) in both glycolysis and gluconeogenesis pathways. Additionally, it plays a significant role in the production of methylglyoxal, a reactive cytotoxic compound that can modify and potentially alter proteins, DNA, and lipids. The enzyme is localized in the cytoplasm, where it performs these essential metabolic functions. This recombinant fragment represents a stable and soluble unit optimized for experimental applications.