

Product datasheet for **SC320334**

Triosephosphate isomerase (TPI1) (NM_000365) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Triosephosphate isomerase (TPI1) (NM_000365) Human Untagged Clone
Tag: Tag Free
Symbol: Triosephosphate isomerase
Synonyms: HEL-S-49; TIM; TPI; TPID
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC (PS100020)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000365.4
 CTTCAGCGCCTCGGCTCCAGCGCCATGGCGCCCTCCAGGAAGTTCTTCGTGGGGGAAAC
 TGGAAAGATGAACGGGCGGAAGCAGAGTCTGGGGGAGCTCATCGGCACTCTGAACGGGGCC
 AAGGTGCCGCGCCACACCGAGGTGGTTTGTCTCCCCCTACTGCCTATATCGACTTCGCC
 CGGCAGAAGCTAGATCCCAAGATTGCTGTGGCTGCGCAGAAGTGTACAAAGTGACTAAT
 GGGGCTTTTACTGGGAGATCAGCCCTGGCATGATCAAAGACTGCGGAGCCACGTGGGTG
 GTCCTGGGGCACTCAGAGAGAAGGCATGTCTTTGGGGAGTCAAGTGTGAGCTGATTGGGCAG
 AAAGTGGCCCATGCTCTGGCAGAGGGACTCGGAGTAATCGCCTGCATTGGGGAGAAGCTA
 GATGAAAGGGAAGCTGGCATCACTGAGAAGTTGTTTTCGAGCAGACAAAGGTCATCGCA
 GATAACGTGAAGGACTGGAGCAAGGTCGTCTGGCCTATGAGCCTGTGTGGCCATTGGT
 ACTGGCAAGACTGCAACACCCCAACAGGCCAGGAAGTACACGAGAAGCTCCGAGGATGG
 CTGAAGTCCAACGTCTCTGATGCGGTGGCTCAGAGCACCCGTATCATTTATGGAGGCTCT
 GTGACTGGGGCAACCTGCAAGGAGCTGGCCAGCCAGCCTGATGTGGATGGCTTCCTTGTG
 GGTGGTGTCTCCCTCAAGCCCAATTCGTGGACATCATCAATGCCAAACAATGAGCCCCA
 TCCATCTTCCCTACCTTCTGCAAGCCAGGGACTAAGCAGCCAGAAAGCCAGTAACT
 GCCCTTCCCTGCATATGCTTCTGATGGTGTCTCTGCTCCTTCTGTGGCCTCATCCAA
 ACTGTATCTTCTTTACTGTTTATATCTTACCCTGTAATGGTTGGGACCAGGCCAATCC
 CTTCTCCACTTACTATAATGGTTGGAATAAACGTCACCAAGGTGGCTTCTCCTTGGCTG
 AGAGATGGAAGGCGTGGTGGGATTTGCTCCTGGGTTCCCTAGGCCCTAGTGAGGGCAGAA
 GAGAAACCATCCTCTCCCTTCTTACACCGTGAGGCCAAGATCCCCCAGAAAGGCAGGAGT
 GCTGCCCTCTCCCATGGTGCCCGTGCTCTGTGCTGTGTATGTGAACCACCCATGTGAGG
 GAATAAACCTGGCACTAGGAAA
 AAAAAAAAAAAAAA

Restriction Sites: Please inquire
ACCN: NM_000365



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OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_000365.4](#), [NP_000356.1](#)

RefSeq Size: 1254 bp

RefSeq ORF: 750 bp

Locus ID: 7167

UniProt ID: [P60174](#)

Cytogenetics: 12p13.31

Domains: TIM

Protein Pathways: Fructose and mannose metabolism, Glycolysis / Gluconeogenesis, Inositol phosphate metabolism, Metabolic pathways

Gene Summary: This gene encodes an enzyme, consisting of two identical proteins, which catalyzes the isomerization of glyceraldehydes 3-phosphate (G3P) and dihydroxy-acetone phosphate (DHAP) in glycolysis and gluconeogenesis. Mutations in this gene are associated with triosephosphate isomerase deficiency. Pseudogenes have been identified on chromosomes 1, 4, 6 and 7. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2009]

Transcript Variant: This variant (1) encodes the predominant isoform (1). CCDS Note: This CCDS represents a TPI variant that uses an internal promoter compared to the CCDS53740.1 representation. Data in PMIDs 4022011, 2925688, 2243103 and 10575546 support the presence of the internal promoter used by this variant. The resulting isoform is 37 aa shorter at the N-terminus compared to the CCDS53740.1 isoform. N-terminal sequencing in PMIDs 9150946 and 9150948 supports the existence of the shorter isoform in vivo.