

Product datasheet for **SC111041**

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:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC111041 sequence for NM_000365 edited (data generated by NextGen Sequencing)

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ATGGCGCCCTCCAGGAAGTTCTTCGTTGGGGGAACTGGAAGATGAACGGCGGAAGCAG
AGTCTGGGGGAGCTCATCGGCACTCTGAACGCGCCAAGGTGCCGCGACACCGAGGTG
GTTTGTGCTCCCCCTACTGCCTATATCGACTTCGCCCGGAGAAGCTAGATCCCAAGATT
GCTGTGGCTGCGCAGAACTGCTACAAAGTGACTAATGGGGCTTTTACTGGGGAGATCAGC
CCTGGCATGATCAAAGACTGCGGAGCCACGTGGGTGGTCTGGGGCACTCAGAGAGAAGG
CATGTCTTTGGGGAGTCAGATGAGCTGATTGGGCAGAAAGTGGCCATGCTCTGGCAGAG
GGACTCGGAGTAATCGCCTGCATTGGGGAGAAGCTAGATGAAAGGAAGCTGGCATCACT
GAGAAGGTTGTTTTCGAGCAGACAAAGGTCATCGCAGATAACGTGAAGGACTGGAGCAAG
GTCGTCTGGCCTATGAGCCTGTGTGGCCATTGGTACTGGCAAGACTGCAACACCCCAA
CAGGCCAGGAAGTACACGAGAAGCTCCGAGGATGGCTGAAGTCCAACGTCTCTGATGCG
GTGGCTCAGAGCACCCGTATCATTATGGAGGCTCTGTGACTGGGGCAACCTGCAAGGAG
CTGGCCAGCCAGCCTGATGTGGATGGCTTCCTTGTGGGTGGTCTCCCTCAAGCCCGAA
TTCGTGGACATCATCAATGCCAAACAATGA
```

Clone variation with respect to NM_000365.5



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000365 unedited
 GTTCAAATTTGTATACGACTCACTATAGGCGGCCGCGCAATTCGCACGAGTCGGCTCCGC
 GCCTGGCGCCCTCCAGGAATTCTTCGTTGGGGGAAACTGGAAGATGAACGGGCGGAAGCA
 GAGTCTGGGGGAGCTCATCGGCACTCTGAACGCGGCCAAGGTGCCGGCCGACACCGAGGT
 GGTTTGTGCTCCCCCTACTGCCTATATCGACTTCGCCCGCAGAAGCTAGATCCCAAGAT
 TGCTGTGGCTGCGCAGAACTGCTACAAAGTGACTAATGGGGCTTTTACTGGGAGATCAG
 CCCTGGCATGATCAAAGACTGCGGAGCCACGTGGGTGGTCTGGGGCACTCAGAGAGAAG
 GCATGTCTTTGGGAGTCAGATGAGCTGATTGGGCAGAAAGTGGCCCATGCTCTGGCAGA
 GGGACTCGGAGTAATCGCCTGCATTGGGAGAAGCTAGATGAAAGGGAAGCTGGCATCAC
 TGAGAAGTTGTTTTCGAGCAGACAAAGGTCATCGCAGATAACGTGAAGGACTGGAGCAA
 GGTGCTCTGGCCTATGAGCCTGTGTGGCCATTGGTACTGGCAAGACTGCAACACCCCA
 ACAGGCCAGGAAGTACACGAGAAGCTCCGAGGATGGCTGAAGTCCAACGTCTCTGATGC
 GGTGGCTCAGAGCACCCGTATCATTATNGGAGCTCTGTGACTGGGGCAACCTGCAGGGA
 GCTGGCCAGCCAGCTGAGTTGGATGGCTTCTTGTGGGGTGTGCTTCCCTCAGCCGA
 ATTCGTNGACATCATCAATGCCAAAACATGAGCCCATNCATCTTCCCTACCTTCTGCC
 CAGCCAGGGACTAAGCAGNCCAGAAGCCAGTACTGCCCTTNCCTGCATATGCTCTGATG
 GNCATCTGCTCCTTCTGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000365 unedited
 GTGGCAACTTTCCAGGGCCAGGAAAAGCACTGGGGAGGGGTCACAGGGATGCCACCCGGG
 ATCTGTTCCAGGAAACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTT
 TTTTTTTTTTTTTTTTTTCTAGGGCCAGGTTTATCCCTCACATGGGGGTTTACAT
 ACACAGCACAGAGGCACGGGCACCATGGGAAAGGGCAGCACTCCTGCCTTTTGGGGGAT
 CTTGGCCTCACGGGTAAAAGGAAAGGATGGTTTCTTCTGCCCTCACTAGGCCTA
 GGAACCCAGGAGCAAATCCCACACGCCTTCCATTTTTAAGCCAAGGAAAAGCCACCTT
 GGGGACGTTTAGTTCCAACCATATAGTAAGGGGAAAAGGGATTGGCCTGGTCCCAACCA
 TTACAGGGGGAAGATATAAACAGTAAAGGAAGATACAGTTTGGATGAGGCCACAGGAAGG
 AGCAAATGACACCATCAAACCATATGCAGGAAAGGGCAGTTACTGGGCTTCTGGGCTG
 CTTANTCCCTGGCTTGGCAGGAAGGGTAGGGAAAATGGATGGGGCTCATTGTTTGGCATT
 GATGATGTCCACAAATTCGGGCTTGAGGGAAGCACCACCACAAGGAAGCCATCCACATC
 AGGTGGCTGGCAGCTCCTTGCAGGTTGCCCCAGTCACAGAGCCTCCATAAATGATACG
 GGTGCTCTGAGCCACCGATNAGAGACGTTGGACTTCAGCCTCCTCGGAGCTTCTCGGTAC
 TTCTGGGCTGTTTNGGGGTNTTAAATTTTCCAGTACCAATGGCCACACAGCTCATA
 GCCAGACACTTGCTCANCCTTCAGTTATTGGAAGGACTTTGTTGCTA

Restriction Sites:

NotI-NotI

ACCN:

NM_000365

Insert Size:

1340 bp

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).

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.