

Product datasheet for RC202652

Triosephosphate isomerase (TPI1) (NM_000365) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Triosephosphate isomerase (TPI1) (NM_000365) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Triosephosphate isomerase
Synonyms:	HEL-S-49; TIM; TPI; TPID
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202652 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCCCTCCAGGAAGTTCTTCGTTGGGGGAACTGGAAGATGAACGGCGGAAGCAGAGTCTGGGGG
AGCTCATCGGCACTCTGAACCGGCCAAGGTGCCGGCCGACACCGAGGTGGTTTGTGCTCCCCCTACTGC
CTATATCGACTTCGCCCGCAGAAGCTAGATCCCAAGATTGCTGTGGCTGCGCAGAAGTCTACAAAGTG
ACTAATGGGGCTTTTACTGGGGAGATCAGCCCTGGCATGATCAAAGACTGCGGAGCCACGTGGGTGGTCC
TGGGGCACTCAGAGAGAAGGCATGTCTTTGGGGAGTCAGATGAGCTGATTGGGCAGAAAGTGGCCCATGC
TCTGGCAGAGGGACTCGGAGTAATCGCCTGCATTGGGGAGAAGCTAGATGAAAGGGAAGCTGGCATCACT
GAGAAGTTGTTTTCGAGCAGACAAAGGTCATCGCAGATAACGTGAAGGACTGGAGCAAGTCGTCTCGG
CCTATGAGCCTGTGTGGCCATTGGTACTGGCAAGACTGCAACACCCCAACAGGCCAGGAAGTACACGA
GAAGCTCCGAGGATGGCTGAAGTCCAACGTCTCTGATGCGGTGGCTCAGAGCACCCGTATCATTTATGGA
GGCTCTGTGACTGGGGCAACCTGCAAGGAGCTGGCCAGCCAGCCTGATGTGGATGGCTTCTTTGTGGGTG
GTGCTTCCCTCAAGCCGAATTCGTGGACATCATCAATGCCAAACAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202652 protein sequence
 Red=Cloning site Green=Tags(s)

MAPSRKFFVGGNWKMNQRKQSLGELIGTLNAAKVPADTEVVCAPPTAYIDFARQKLDPKIAVAAQNCYKV
 TNGAFTGEISPGMIKDCGATWVVLGHSERRHVFGEDELIGQKVAHALAEGLGVIACIGEKLDEREAGIT
 EKVVFEQTKVIADNVKDWKSVVLAYEPVVAIGTGKTATPQQAQEVHEKLRGWLKSNVSDAVAQSTRIIYG
 GSVTGATCKELASQPDVDGFLVGGASLKPEFVDIINAKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6436_h09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000365

ORF Size: 747 bp

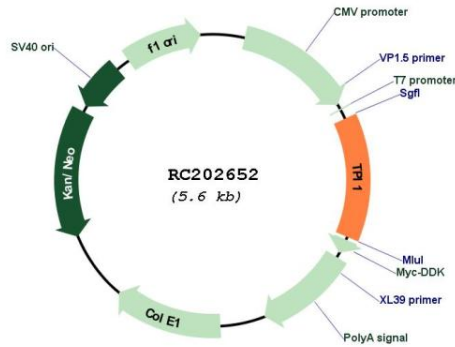
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

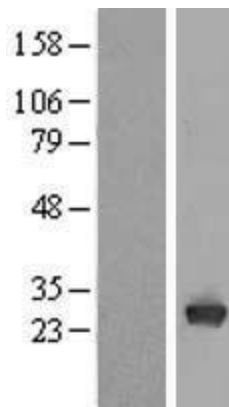
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000365.6
RefSeq Size:	1366 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
MW:	26.7 kDa
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]

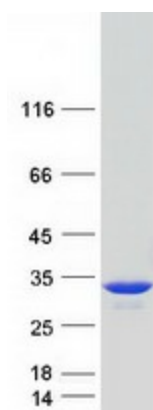
Product images:



Circular map for RC202652



Western blot validation of overexpression lysate (Cat# [LY424764]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202652 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TPI1 protein (Cat# [TP302652]). The protein was produced from HEK293T cells transfected with TPI1 cDNA clone (Cat# RC202652) using MegaTran 2.0 (Cat# [TT210002]).