

Product datasheet for **RG228219**

Triosephosphate isomerase (TPI1) (NM_001159287) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Triosephosphate isomerase (TPI1) (NM_001159287) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TPI1
Synonyms:	HEL-S-49; TIM; TPI; TPID
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG228219 representing NM_001159287 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGAGGACGGCGAGGAGGCGGAGTTCACCTTCGCGGCGCTCTATATAAGTGGGCAGTGGCCGCGAC
TGCGCGCAGACTGACCTTCAGCGCCTCGGCTCCAGCGCCATGGCGCCCTCCAGGAAGTTCTTCGTTGG
GGGAACTGGAAGATGAACGGGCGGAAGCAGAGTCTGGGGAGCTCATCGGCACTCTGAACGCGGCCAAG
GTGCCGGCCGACACCGAGGTGGTTGTGCTCCCCCTACTGCCTATATCGACTTCGCCCGGAGAAGCTAG
ATCCCAAGATTGCTGTGGCTGCGCAGAAGTGTACAAAGTACTAATGGGGCTTTTACTGGGAGATCAG
CCCTGGCATGATCAAAGACTGCGGAGCCACGTGGGTGGTCTGGGGCACTCAGAGAGAAGGCATGTCTTT
GGGAGTCAGATGAGCTGATTGGCAGAAAAGTGGCCATGCTCTGGCAGAGGGACTCGGAGTAATCGCCT
GCATTGGGAGAAGCTAGATGAAAGGGAAGCTGGCATCACTGAGAAGGTTGTTTTCGAGCAGACAAAGGT
CATCGCAGATAACGTGAAGGACTGGAGCAAGTTCGTCCTGGCCTATGAGCCTGTGTGGCCATTGGTACT
GGCAAGACTGCAACACCCCAACAGGCCAGGAAGTACACGAGAAGCTCCGAGGATGGCTGAAGTCCAACG
TCTCTGATGCGGTGGCTCAGAGCACCCGATCATTATGGAGGCTCTGTGACTGGGGCAACCTGCAAGGA
GCTGGCCAGCCAGCCTGATGTGGATGGTTCCTTGTGGTGGTGTCTCCCTCAAGCCCAATTCTGGAC
ATCATCAATGCCAAACAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

Protein Sequence: >RG228219 representing NM_001159287
Red=Cloning site Green=Tags(s)

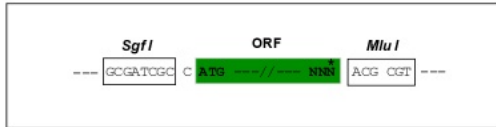
MAEDGEEAEFHFAALYISQWPRLRADTDLQRLGSSAMAPSRKFFVGGNWKMNKRKQSLGELIGTLNAAK
 VPADTEVVCAPPTAYIDFARQKLDPKIAVAQAQNCYKVTNGAFTGEISPGMIKDCGATWVVLGHSERRHVF
 GESDELIGQKVAHALAELGLVVIACIGEKLDEREAGITEKVVFEQTKVIADNVKDWKVVLAEPVWAIGT
 GKATATPQQAQEVHEKLRGWLKSNVSDAVAQSTRIIYGGSVTGATCKELASQPDVDGFLVGGASLKPEFVD
 IINAKQ

TRTRPLE - GFP Tag - V

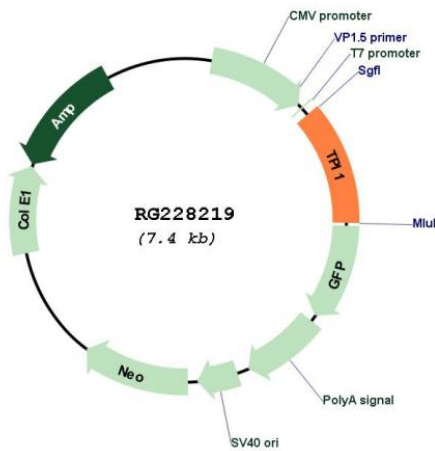
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001159287

ORF Size: 858 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:

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_001159287.1](#), [NP_001152759.1](#)

RefSeq Size: 1460 bp

RefSeq ORF: 861 bp

Locus ID: 7167

UniProt ID: [P60174](#)

Cytogenetics: 12p13.31

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]