

Product datasheet for **RG231935**

Triosephosphate isomerase (TPI1) (NM_001258026) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Triosephosphate isomerase (TPI1) (NM_001258026) 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: >RG231935 representing NM_001258026
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATCAAAGACTGCGGAGCCACGTGGGTGGTCTGGGGCACTCAGAGAGAAGGCATGTCTTTGGGGAGT
CAGATGAGCTGATTGGGCAGAAAGTGGCCCATGCTCTGGCAGAGGGACTCGGAGTAATCGCTGCATTGG
GGAGAAGCTAGATGAAAGGAAGCTGGCATCACTGAGAAGTTGTTTTCGAGCAGACAAAGGTCATCGCA
GATAACGTGAAGGACTGGAGCAAGGTCGTCTGGCCTATGAGCCTGTGTGGCCATTGGTACTGGCAAGA
CTGCAACACCCCAACAGGCCAGGAAGTACACGAGAAGCTCCGAGGATGGCTGAAGTCCAACGTCTCTGA
TGCGGTGGCTCAGAGCACCCGTATCATTATGGAGGCTCTGTGACTGGGGCAACCTGCAAGGAGCTGGCC
AGCCAGCCTGATGTGGATGGCTTCTTGTGGTGGTCTCCCTCAAGCCGAATTCGTGGACATCATCA
ATGCCAAACAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG231935 representing NM_001258026
Red=Cloning site Green=Tags(s)

MIKDCGATWVVLGHSERRHVFGEDELIGQKVAHALAEGLGVIACIGEKLDEREAGITEKVVFEQTKVIA
DNVKDWSKVLLAYEPVWAIGTGKTATPQQAQEVHEKLRGLWLSNVS DAVAQSTRIIYGGSVTGATCKELA
SQPDVDGFLVGGASLKPEFVDIINAKQ

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

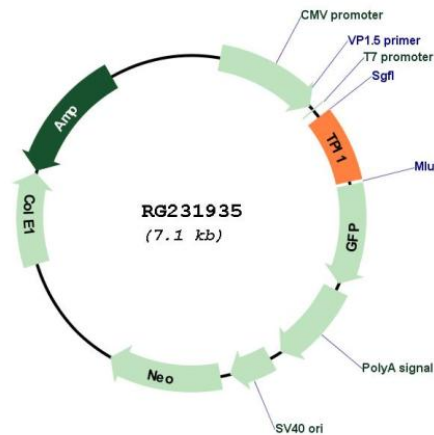


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Cloning Scheme:



Plasmid Map:



ACCN: NM_001258026

ORF Size: 501 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.
RefSeq:	<u>NM_001258026.1</u> , <u>NP_001244955.1</u>
RefSeq Size:	1602 bp
RefSeq ORF:	504 bp
Locus ID:	7167
UniProt ID:	<u>P60174</u>
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]