

Product datasheet for **RG213647**

TPK1 (NM_001042482) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: TPK1 (NM_001042482) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: TPK1
Synonyms: HTPK1; PP20; THMD5
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG213647 representing NM_001042482
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGCATGCCTTTACCCCGTTGGAGCCCTGCTTTCCACTGGGAATTTGAAGTACTGCCTTGAATTC
 TTAATCAGCCTTTGGACAACCTATTTTCGTCATCTTTGGAACAAAGCTCTTTAAGAGCCTGTGCCGATGG
 AGGTGCCAACCGCTTATGATATCACCGAAGGAGAGAGAGAAAGCTTTTGCCTGAATTCATCAATGGA
 GACTTTGATTCTATTAGCCTGAAGTCAGAGAATACTATGCTACTAAGGGATGTGAGCTCATTTCAACTC
 CTGATCAAGACCACACTGACTTTACTAAGTGCCTTAAATGCTCCAAAAGAAGATAGAAGAAAAAGACTT
 AAAGGGAAAGCACAGTTGCATGTAGACACTGGAATGGAGGGTGATTGGTGTGGCCTTATTCCTGTTGGA
 CAGCCTTGATGCAGTTACAACCACAGCCTCAAGTGGAACTCACAATGATGTGCTTTGGAA
 CATTGGTCAGTACTTCCAATACCTACGACGGGTCTGGTGTGTGACTGTGGAAACTGACCACCCACTCCT
 CTGGACCATGGCCATCAAAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG213647 representing NM_001042482
 Red=Cloning site Green=Tags(s)

MEHAFTPLEPLLSTGNLKYCLVILNQPLDNYFRHLWKNKALLRACADGGANRLYDITEGERESFLPEFING
 DFDSIRPEVREYYATKGCELISTPDQDHTDFTKCLKMLQKKIEEKDLKKGKHLHVDVTGMEGDWCGLIIPVG
 QPCMQVTTTGLKWNLTNDVLAFGTLVSTSNYDGSVVTVETDHPLLWTMAIKS

TRTRPLE - GFP Tag - V

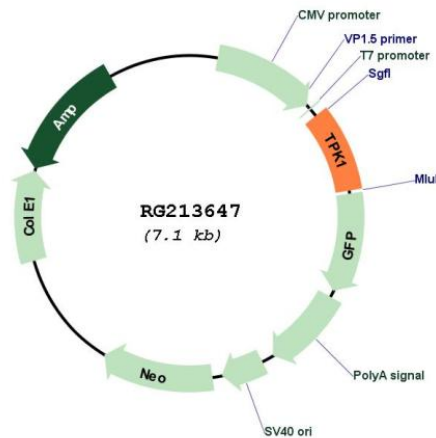
Restriction Sites: Sgfl-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_001042482

ORF Size: 582 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:

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_001042482.1](#), [NP_001035947.1](#)

RefSeq Size: 2302 bp

RefSeq ORF: 585 bp

Locus ID: 27010

UniProt ID: [Q9H3S4](#)

Cytogenetics: 7q35

Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Thiamine metabolism

Gene Summary: The protein encoded by this gene functions as a homodimer and catalyzes the conversion of thiamine to thiamine pyrophosphate, a cofactor for some enzymes of the glycolytic and energy production pathways. Defects in this gene are a cause of thiamine metabolism dysfunction syndrome-5. [provided by RefSeq, Apr 2017]