

Product datasheet for RC213647

TPK1 (NM_001042482) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: TPK1 (NM_001042482) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: TPK1
Synonyms: HTPK1; PP20; THMD5
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC213647 representing NM_001042482
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGAGCATGCCTTTACCCCGTTGGAGCCCTGCTTCCACTGGGAATTTGAAGTACTGCCTTGAATTC
 TTAATCAGCCTTTGGACAACATTTTCGTCATCTTTGGAACAAAGCTCTTTAAGAGCCTGTGCCGATGG
 AGGTGCCAACCGCTTATGATATCACCGAAGGAGAGAGAAAGCTTTTGCCTGAATTCATCAATGGA
 GACTTTGATTCTATTAGCCTGAAGTCAGAGAATACTATGCTACTAAGGGATGTGAGCTCATTTCAACT
 CTGATCAAGACCACACTGACTTTACTAAGTGCCTTAAATGCTCCAAAAGAAGATAGAAGAAAAGACTT
 AAAGGGAAAGCACAGGTTGCATGTAGACACTGGAATGGAGGGTATTGGTGTGGCCTTATTCCTGTTGGA
 CAGCCTTGATGCAGGTTACAACCACAGGCCTCAAGTGGAACTCACAATGATGTGCTTTTGGAA
 CATTGGTCAGTACTTCCAATACCTACGACGGGTCTGGTGTGTGACTGTGGAAACTGACCACCCACTCCT
 CTGGACCATGGCCATCAAAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC213647 representing NM_001042482
 Red=Cloning site Green=Tags(s)

MEHAFTPLEPLLSTGNLKYCLVILNQPLDNYFRHLWKNKALLRACADGGANRLYDITEGERESFLPEFING
 DFDSIRPEVREYYATKGCELISTPDQDHTDFTKCLKMLQKKIEEKDLKKGKHLHVDTGMEGDWCGLIPVG
 QPCMQVTTTGLKWNLTNDVLAFTLVSTSNYDGSVVTVETDHPDLLWTMAIKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Chromatograms: https://cdn.origene.com/chromatograms/ja1454_b05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



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](#)

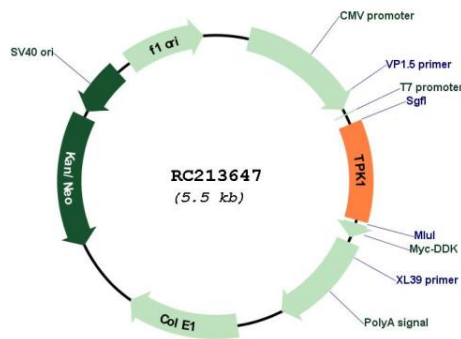
RefSeq Size: 2302 bp

RefSeq ORF: 585 bp

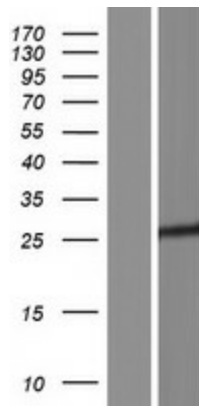
Locus ID: 27010

UniProt ID: [Q9H3S4](#)
 Cytogenetics: 7q35
 Protein Families: Druggable Genome
 Protein Pathways: Metabolic pathways, Thiamine metabolism
 MW: 21.7 kDa
 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]

Product images:



Circular map for RC213647



Western blot validation of overexpression lysate (Cat# [LY420935]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213647 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).