

## Product datasheet for **SC311347**

### TPK1 (NM\_001042482) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TPK1 (NM_001042482) Human Untagged Clone
Tag:	Tag Free
Symbol:	TPK1
Synonyms:	HTPK1; PP20; THMD5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC311347 representing NM_001042482. Blue=Insert sequence Red=Cloning site Green=Tag(s)

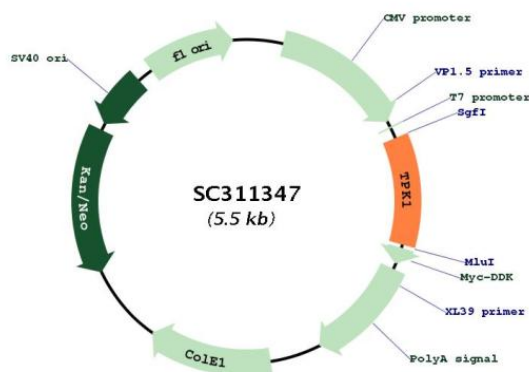
```
GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGAGCATGCCTTACCCCGTTGGAGCCCTGCTTCCACTGGGAATTTGAAGTACTGCCTTGAATT
CTTAATCAGCCTTTGGACAACCTATTTTCGTCATCTTTGGAACAAAGCTCTTTAAGAGCCTTGCCGAT
GGAGGTGCCAACCGCTTATGATATCACCGAAGGAGAGAGAGAAAGCTTTTGCCTGAATTCATCAAT
GGAGACTTTGATTCTATTAGGCCTGAAGTCAGAGAATACTATGCTACTAAGGGATGTGAGCTCATTCA
ACTCCTGATCAAGACCACACTGACTTTACTAAGTGCCTTAAAATGCTCCAAAAGAAGATAGAAGAAAA
GACTTAAAGGAAAGCACAGGTTGCATGTAGACTGGAATGGAGGGTGATTGGTGTGGCCTTATTCCT
GTTGGACAGCCTTGATGCAGGTTACAACCACAGGCCTCAAGTGGAACCTCACAATGATGTGCTTGCT
TTTGAACATTGGTCAGTACTTCCAATACCTACGACGGTCTGGTGTGTGACTGTGAAACTGACCAC
CCACTCCTCTGGACCATGGCCATCAAAAGCTAA
ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: Sgfl-MluI



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## Plasmid Map:



**ACCN:** NM\_001042482

**Insert Size:** 585 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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:	<u>NM_001042482.1</u>
RefSeq Size:	2302 bp
RefSeq ORF:	585 bp
Locus ID:	27010
UniProt ID:	<u>Q9H3S4</u>
Cytogenetics:	7q35
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Thiamine metabolism
MW:	21.9 kDa
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) lacks an alternate in-frame exon, compared to variant 1, resulting in a shorter protein (isoform b), compared to isoform a. Variants 2 and 4 both encode the same isoform (b).</p>