

## Product datasheet for **SC111236**

### TPK1 (NM\_022445) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TPK1 (NM_022445) Human Untagged Clone
Tag:	Tag Free
Symbol:	TPK1
Synonyms:	HTPK1; PP20; THMD5
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_022445, the custom clone sequence may differ by one or more nucleotides

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ATGGAGCATGCCTTTACCCCGTTGGAGCCCTGCTTCCACTGGGAATTTGAAGTACTGCCTTGTAAATC  
TTAATCAGCCTTTGGACAACTATTTTCGTATCTTTGGAACAAAGCTCTTTAAGAGCCTGTGCCGATGG  
AGGTGCCAACCGCTTATATGATATCACCGAAGGAGAGAGAGAAAGCTTTTGCCTGAATTCATCAATGGA  
GACTTTGATTCTATTAGCCTGAAGTCAGAGAATACTATGCTACTAAGGGATGTGAGCTCATTTCAACTC  
CTGATCAAGACCACACTGACTTTACTAAGTGCCTTAAATGCTCCAAAAGAAGATAGAAGAAAAAGACTT  
AAAGTTGATGTGATCGTGACACTGGGAGGCCCTTGCTGGCGTTTTGACCAGATTATGGCATCTGTGAAT  
ACCTTGTCCAAGCGACTCACATCACTCCTTTTCCAATTATAATAATCCAAGAGGAATCGCTGATCTACC  
TGCTCCAACCAGGAAAGCACAGGTTGCATGTAGACACTGGAATGGAGGGTGATTGGTGTGCCTTATTCC  
TGTTGGACAGCCTTGATGCAGGTTACAACCACAGGCCTCAAGTGAACCTCACAAATGATGTGCTTGTCT  
TTTGAACATTGGTCAGTACTTCCAATACCTACGACGGGTCTGGTGTGTGACTGTGAAACTGACCACC  
CACTCCTCTGGACCATGGCCATCAAAGCTAA
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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_022445 unedited</p> <pre> GTCAAATTTTGTAAACGACTCACTATAGGGCGGCCCGCAATTTCGCACGAGNATCTCCA GTCTGTGGCTCCTACCAGCCATTGTAGGCCAATAATCCGTTATGGAGCATGCCTTTACCC CGTTGGAGCCCTGCTTTCCACTGGGAATTTGAAGTACTGCCTTGTAAATCTTAATCAGC CTTTGGACAACATTTTCGTCATCTTTGGAACAAAAGCTCTTTAAGAGCCTGTGCCGATG GAGGTGCCAACCGCTTATATGATATCACCGAAGGAGAGAGAGAAAAGCTTTTTGCCTGAAT TCATCAATGGAGACTTTGATTCTATTAGGCCTGAAGTCAGAGAATACTATGCTACTAAGG GATGTGAGCTCATTTCAACTCCTGATCAAGACCACACTGACTTTACTAAGTGCCTTAAAA TGCTCCAAAAGAAGATAGAAGAAAAAGACTTAAAGTTGATGTGATCGTGACACTGGGAG GCCTTGCTGGGCGTTTTGACCAGATTATGGCATCTGTGAATACCTTGTTCCAAGCGACTC ACATCACTCCTTTTCCAATTATAATAATCCAAGAGGAATCGTGATCTACCTGCTCCAAC CAGGAAAGCACAGGTTGCATGTAGACACTGGAATGGAGGGTGATTGGTGTGCCTTATTC CTGTTGGACAGCCTTGTATGCAGGTTACAACCACAGGCCTCAAGTGGAACCTCACAAATG ATGTGCTTGCCTTTGGAACATTGGTCAGTACTTCCAATACCTACGACGGGTCTGGTGTG TGACTGTGAAACTGACCACCCACTCCTCTGGACCATGGCCATCANAAGCTAACCTGTTG ACTGGCATCCATAAGTGTGCCTCTGCCTTATCTCATTNCTCACAGNTCATTGCTCNACAG AACGATNACCCTGGGTTNGCAGAATACTAACTCTCTAGGGGAACCCACTG </pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_022445 unedited</p> <pre> GGGCAATCCAGCCATTTTNNNAANNGCGTCGTGAACGCGGCCGCATACTANAGCGAGTTT TTTTTTTTTTTTTTGGAAAGTATCCATTTATTAACACTGGTAACATTTTGAGGGCACAC AGAACATGCATTCTTTGGTGGCAAAAATTTAAAATCACAGATATTTCTTTTATATATT ATGAATATATTTCTAGTAAGGAATATATAACTAGTCTTCAGAACTGAAGATGGAACAT AGCTAAGCCTCAACTTCCGGTCAAGCAGAAAGTAAATGAAAAGTGCCGAAAATGCCACAGA CACATGGGCCACTGCTCCTTAAATGCCACAATCACGCGGGCCACTGCTCCTTTCATTCTC TACAGACAACCTGAGTCTCACACTGTCATAGCACCAAGAAGAAAACAGTACTTTCACTT TTCTTATAGCAACATAGGGATTTGTGTACATAAAACATGTTGGACAGGTTCTACTTCAAT CATGGTTTGTATGTCAACAGTTGGTTTCATAAAACAGAGAAAGGTGGAAGAAGATAGAA GATGGTCTCTTTACCAAGAAAGGTGAATACATTTTCGATGCACCAGGTGTTTAGGCTAGT CAGTAACTGTGTATTATAGCCCTATGACTGCTAAGTGAATATTTAAAATTCAGTGTG GGAAGACCTGAGAAACCATTAGTCCAACCGCTTTCATTNTACAGCTAAGGAAAAAGGTT CCCGAAACTTAGGTGAATATCATACTGGGATGAAAACCCAAAGCTTTGGAGTTAGGCTCCT TAGTTTGGAAAGTTATGTTTCCCCATAAAACAACTAATTTCTTGTTAATATGAATCCCTC TGGGAGAAACCAACCATTTTAAAGTCAAAGTGATTGTAACAAACAAATCAATTTTATGGTA AAGTTCCTTGGCCAACCTTTTTACTTAAGGGTGGGAAAAAGAAATCAAACCGTTACCCCC TTAAAACCTGGCCTTTTACTTTTGAATTTNGGGGTATAGGGGAATAAGGGCCC </pre>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_022445
<b>Insert Size:</b>	2560 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_022445.2</a> , <a href="#">NP_071890.2</a>
<b>RefSeq Size:</b>	2449 bp
<b>RefSeq ORF:</b>	732 bp
<b>Locus ID:</b>	27010
<b>UniProt ID:</b>	<a href="#">Q9H3S4</a>
<b>Cytogenetics:</b>	7q35
<b>Domains:</b>	TPK_catalytic, TPK_B1_binding
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Metabolic pathways, Thiamine metabolism
<b>Gene Summary:</b>	<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 (1) encodes the longest isoform (a). Variants 1 and 3 both encode the same isoform (a).</p>