

## Product datasheet for **SC118084**

### Thymidine Kinase 1 (TK1) (NM\_003258) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Thymidine Kinase 1 (TK1) (NM_003258) Human Untagged Clone
Tag:	Tag Free
Symbol:	Thymidine Kinase 1
Synonyms:	TK2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118084 sequence for NM_003258 edited (data generated by NextGen Sequencing) ATGAGCTGCATTAACCTGCCACTGTGCTGCCCGCTCCCCAGCAAGACCCGGGGCAG ATCCAGGTGATTCTCGGGCCGATGTTCTCAGGAAAAGCACAGAGTTGATGAGACGCGTC CGTCGCTTCCAGATTGCTCAGTACAAGTGCCTGGTATCAAGTATGCCAAGACTCGC TACAGCAGCAGCTTCTGCACACATGACCGGAACCCATGGAGGCGCTGCCCGCTGCCTG CTCCGAGACGTGGCCAGGAGGCCCTGGGCGTGGCTGTCATAGGCATCGACGAGGGGCAG TTTTTCCCTGACATCGTGGAGTTCTGCGAGGCCATGGCCAACGCCGGAAGACCGTAATT GTGGCTGCACTGGATGGGACCTTCCAGAGGAAGCCATTTGGGGCCATCCTGAACCTGGTG CCGCTGGCCGAGAGCGTGGTGAAGCTGACGGCGGTGTCATGGAGTGCTTCCGGGAAGCC GCCTATACCAAGAGGCTCGGCACAGAGAAGGAGTTCGAGGTGATTGGGGGAGCAGACAAG TACCACTCCGTGTGTCGGCTCTGCTACTTCAAGAAGGCCCTCAGGCCAGCCTGCCGGGCC GACAACAAGAGAACTGCCAGTGCCAGGAAAGCCAGGGGAAGCCGTGGCTGCCAGGAAG CTCTTTGCCCCACAGCAGATTCTGCAATGCAGCCCTGCCAACTGA
	Clone variation with respect to NM_003258.4 33 t->c;225 a->g



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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_003258 unedited  CACACCACGGCCACNACCCCTTCCACCCGCCTTGTTCACATTTGTATACGACTCACTA  TAGGCGGCGCGNATATCGCACGAGCGGGAGCGCAATGAGCTGCATTAACCTGCCCATGT  GCTGCCCGGCTCCCCAGCAAGACCCGGGGCAGATCCAGGTGATTCTCGGGCCGATGTT  CTCAGGAAAAAGCACAGAGTTGATGAGACGCGTCCGTCGTTCCAGATTGCTCAGTACAA  GTGCCTGGTGATCAAGTATGCCAAAGACTCGCTACAGCAGCAGCTTCTGCACACATGA  CCGGAACACCATGGAGGCGCTGCCCGCTGCCTGCTCCGAGACGTGGCCAGGAGGCCCT  GGGCGTGGCTGTATAGGCATCGACGAGGGCAGTTTTTCCCTGACATCGTGGAGTTCTG  CGAGGCCATGGCCAACGCCGGGAAGACCCTAATTGTGGCTGCACTGGATGGGACCTTCCA  GAGGAAGCCATTTGGGGCCATCTGAACCTGGTGCCGCTGGCCGAGAGCGTGGTGAAGCT  GACGGCGGTGTCATGGAGTGCTCCGGGAAGCCGCTATACCAAGAGGCTCGGCACAGA  GAAGGAGTTCGAGGTGATTGNGGGAGCAGACAAGTACCACTCCGTGTGTCGGCTCTGCTA  CTTCAAGAAAGCCTCAGGCCAGCCTGCCGGCCGGACAACANAGAACTGCCAGTGCCA  GAAAGCCAGGGGAAGCCGTGGTGCCAGAAAGCTCTTTCGCCACAGCAGATTCTGCAA  TGCAGCCCTGTCCACTGAGGGACCTGCGATGGCCGNCCTCCCTTCCCTGCCACTGGCGN  CTACTGGACCCTGCCCTGCATGCTTGCCAGCCACTCCCAGAAGAAGTCGGGAAGG</p>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_003258 unedited  GGGTTGCTATGGAACCGCGCGCAATCTANGATCGAGTTTTTTTTTTTTTTTTTTTTTTT  TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT  GGGAATTTTCAATTATTTAATTTCAAACCTACAGCAAAGGGGGGCCCCGGCCCTTCCC  CCCTTAAAAAAAACCCCGGGATCCAATTCCAAAAGGGTGGGGCCCCCATTTTGG  GAAAAATGCTTTTTTCTGGGAAACCCTCCCAAAGGTGGGAAGGGTTTTGACCCCA  AAAGGAAACAAAAGGGGGGAACCCCGCCCCCCCCGGGGGGGGGGGACCCCTCCCA  GGCAAAAGGGCCTAACCTCATGGGGGGCAAGGCTAAAAGGGGCTGGCCAGGCTTCCC  AGGGAAAAAAAACCCCTTTGAAACCCCAAAGGGGAAAAACCAGGCTGATTTCAAC  AGGGGGGGGCTTTTCCCCCACCCCAAGGAGAGGGAGGGGGCCAAATCCCAGGCCACAA  GGGGGGCCGTTCCACCCGGGCAATCTTCCCCCCCCTGAAAGGGAACCTTTAAACAA  CCATTGGGTAAAAAAAAGGAACTTCCCCGGGGGGGGCCCCCACAAGAGAAATTCT  CCAAAGGCCAAGGTGTGGGTATCTTCCCGCCTCCAATTTTTTTTGGAAAGGCTGGGCAC  ATGCAGGGGAACCTCCCATTAGCCGCAATTGCAAAAAGAGACGGGGCCCCCTCGAAGGT  CCCTTATTTGGGAGGGCTCCTTTAAAAAATTGGGTGGGGGAAAAAATTCTGGGGGCC  CCGGGTTTCCCTGGTTTTTGGCGGGGGGAAGTTTTTTTTTTTTTCCGCCCGAAGGTG  GGCTTAAG</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_003258
<b>Insert Size:</b>	1500 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_003258.1</a> , <a href="#">NP_003249.1</a>
<b>RefSeq Size:</b>	1421 bp
<b>RefSeq ORF:</b>	705 bp
<b>Locus ID:</b>	7083
<b>UniProt ID:</b>	<a href="#">P04183</a>
<b>Cytogenetics:</b>	17q25.3
<b>Domains:</b>	TK
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency
<b>Protein Pathways:</b>	Drug metabolism - other enzymes, Metabolic pathways, Pyrimidine metabolism
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a cytosolic enzyme that catalyzes the addition of a gamma-phosphate group to thymidine. This creates dTMP and is the first step in the biosynthesis of dTTP, which is one component required for DNA replication. The encoded protein, whose levels fluctuate depending on the cell cycle stage, can act as a low activity dimer or a high activity tetramer. High levels of this protein have been used as a biomarker for diagnosing and categorizing many types of cancers. [provided by RefSeq, Oct 2016]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).</p>