

Product datasheet for **SC331009**

Thymidine Kinase 2 (TK2) (NM_001271934) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Thymidine Kinase 2 (TK2) (NM_001271934) Human Untagged Clone
Tag: Tag Free
Symbol: TK2
Synonyms: MTDP2; MTTK; PEOB3; SCA31
Vector: pCMV6-Entry (PS100001)
Fully Sequenced ORF: >SC331009 representing NM_001271934.
Blue=Insert sequence **Red**=Cloning site **Green**=Tag(s)

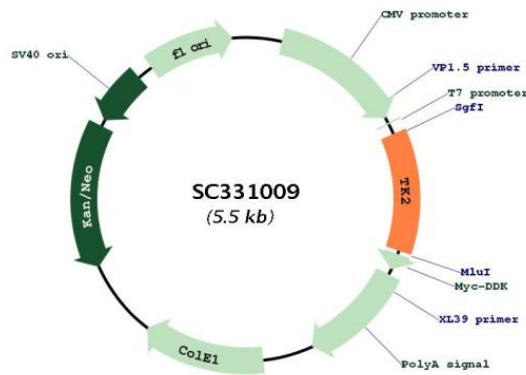
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ATGACAAGTATCTGTGTCGAGGGCAATATTGCAAGTGGGAAGACGACATGCCTGGAATTCTTCTCCAAC
GCGACAGACGTCGAGGTGTTAACGGAGCCTGTGTCCAAGTGGAGAAATGTCGGTGGCCACAATCCTCTG
GGCCTGATGTACCACGATGCCTCTCGCTGGGTCTTACGCTACAGACTTATGTGCAGCTCACCATGCTG
GACAGGCATACTCGTCTCAGGTGTCATCTGTACGGTTGATGGAGAGGTCGATTCACAGCGCAAGATAC
ATTTTTGTAGAAAACCTGTATAGAAGTGGGAAGATGCCAGAAGTGGACTATGTAGTTCTGTGCGAATGG
TTTGACTGGATCTTGAGGAACATGGACGTGTCTGTTGATTTGATAGTTTACCTTCGGACCAATCCTGAG
ACTTGTTACCAGAGGTTAAAGAAGAGATGCAGGGAAGAGGAGAAGGTATTCCGCTGGAATACCTGGAA
GCAATTCACCATCTCCATGAGGAGTGGCTCATCAAGGCAGCCTTTTCCCATGGCAGCCCTGTTCTG
GTGATTGAGGCTGACCACCACATGGAGAGGATGTTAGAAGTCTTTGAACAAAATCGGGATCGAATATTA
ACTCCAGAGAATCGGAAGCATTGCCCATAG
```

Restriction Sites: Sgfl-Mlul



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Plasmid Map:



ACCN: NM_001271934

Insert Size: 651 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).

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_001271934.1](#)

RefSeq Size: 5228 bp

RefSeq ORF: 651 bp

Locus ID: 7084

Cytogenetics: 16q21

Protein Families: Druggable Genome

Protein Pathways: Drug metabolism - other enzymes, Metabolic pathways, Pyrimidine metabolism

MW: 25.5 kDa

Gene Summary: This gene encodes a deoxyribonucleoside kinase that specifically phosphorylates thymidine, deoxycytidine, and deoxyuridine. The encoded enzyme localizes to the mitochondria and is required for mitochondrial DNA synthesis. Mutations in this gene are associated with a myopathic form of mitochondrial DNA depletion syndrome. Alternate splicing results in multiple transcript variants encoding distinct isoforms, some of which lack transit peptide, so are not localized to mitochondria. [provided by RefSeq, Dec 2012]

Transcript Variant: This variant (5) has an additional exon in the 5' region, which results in an alternate translation start codon, compared to variant 1. The encoded isoform (5) is not localized to mitochondria, and it has a distinct N-terminus and is shorter than isoform 1.

Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.