

Product datasheet for RC229747L3

OriGene Technologies, Inc.

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Thymidine Kinase 2 (TK2) (NM_001172644) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Thymidine Kinase 2 (TK2) (NM_001172644) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Thymidine Kinase 2

Synonyms: MTDPS2; MTTK; PEOB3; SCA31

Mammalian Cell

Selection:

Puromycin

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

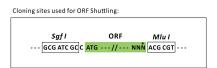
ORF Nucleotide

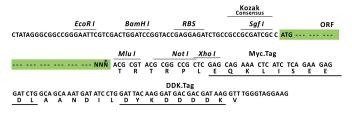
The ORF insert of this clone is exactly the same as(RC229747).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF.

ACCN: NM_001172644

ORF Size: 720 bp



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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: <u>NM 001172644.1</u>

 RefSeq ORF:
 723 bp

 Locus ID:
 7084

 UniProt ID:
 000142

 Cytogenetics:
 16q21

Protein Families: Druggable Genome

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

MW: 28.8 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]