

## Product datasheet for RC218280L2

#### OriGene Technologies, Inc.

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### Thymidine Kinase 1 (TK1) (NM\_003258) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: Thymidine Kinase 1 (TK1) (NM\_003258) Human Tagged Lenti ORF Clone

Tag: mGFP

Symbol: Thymidine Kinase 1

Synonyms: TK2

Mammalian Cell None

Selection:

**Vector:** pLenti-C-mGFP (PS100071)

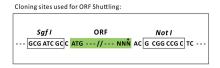
E. coli Selection: Chloramphenicol (34 ug/mL)

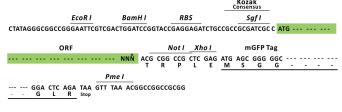
**ORF Nucleotide** The ORF insert of this clone is exactly the same as(RC218280).

Sequence:

**Restriction Sites:** Sgfl-Notl

**Cloning Scheme:** 





st The last codon before the Stop codon of the ORF.

**ACCN:** NM\_003258

ORF Size: 702 bp



#### Thymidine Kinase 1 (TK1) (NM\_003258) Human Tagged Lenti ORF Clone - RC218280L2

**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 003258.1</u>

 RefSeq Size:
 1616 bp

 RefSeq ORF:
 705 bp

 Locus ID:
 7083

 UniProt ID:
 P04183

Cytogenetics: 17q25.3

Domains: TK

**Protein Families:** Druggable Genome, Stem cell - Pluripotency

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

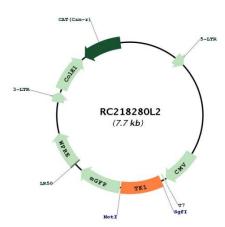
**MW:** 25.5 kDa

**Gene Summary:** 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]



# **Product images:**



Circular map for RC218280L2