

### Product datasheet for RC201156L4

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OriGene Technologies, Inc.

## CDK4 (NM\_000075) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** CDK4 (NM\_000075) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: CDK4

Synonyms: CMM3; PSK-J3

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

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

ORF Nucleotide The ORF insert of this clone

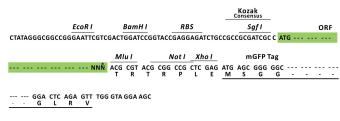
Sequence:

The ORF insert of this clone is exactly the same as (RC201156).

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_000075

ORF Size: 909 bp

#### CDK4 (NM\_000075) Human Tagged Lenti ORF Clone - RC201156L4

**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.

Druggable Genome, Protein Kinase

**RefSeq:** <u>NM 000075.2</u>

 RefSeq Size:
 2020 bp

 RefSeq ORF:
 912 bp

 Locus ID:
 1019

 UniProt ID:
 P11802

Cytogenetics: 12q14.1

**Protein Families:** 

**Domains:** pkinase, TyrKc, S\_TKc

Protein Pathways: Bladder cancer, Cell cycle, Chronic myeloid leukemia, Glioma, Melanoma, Non-small cell lung

cancer, p53 signaling pathway, Pancreatic cancer, Pathways in cancer, Small cell lung cancer, T

cell receptor signaling pathway, Tight junction

MW: 33.7 kDa

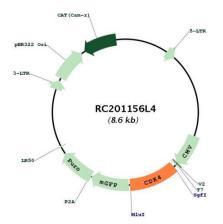
**Gene Summary:** The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This

protein is highly similar to the gene products of S. cerevisiae cdc28 and S. pombe cdc2. It is a catalytic subunit of the protein kinase complex that is important for cell cycle G1 phase progression. The activity of this kinase is restricted to the G1-S phase, which is controlled by the regulatory subunits D-type cyclins and CDK inhibitor p16(INK4a). This kinase was shown to be responsible for the phosphorylation of retinoblastoma gene product (Rb). Mutations in this gene as well as in its related proteins including D-type cyclins, p16(INK4a) and Rb were all found to be associated with tumorigenesis of a variety of cancers. Multiple polyadenylation

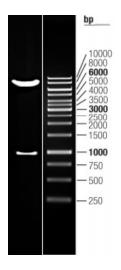
sites of this gene have been reported. [provided by RefSeq, Jul 2008]



# **Product images:**



Circular map for RC201156L4



Double digestion of RC201156L4 using Sgfl and Mlul  $\,$