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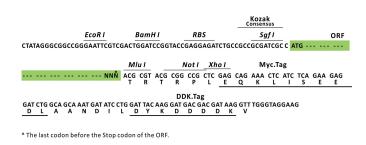EU: info-de@origene.com
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Product datasheet for RC201156L3

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:	Myc-DDK
Symbol:	CDK4
Synonyms:	CMM3; PSK-J3
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC201156).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:

Sgf I   ORF   *Mlu I*

--- GCG ATC GC C ATG ---//--- NNŇ ACG CGT ---

Kozak Consensus

    EcoR I   *BamH I*   RBS   *Sgf I*   ORF

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- --- ---

     Mlu I   *Not I*   *Xho I*   Myc.Tag

--- --- --- --- --- --- --- NNŇ ACG CGT ACG CGG CCG CTC GAG CAG AAA CTC ATC TCA GAA GAG
     T   R   T   R   P   L   E   Q   K   L   I   S   E   E

DDK.Tag

GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TGGGTAGGAAG
  D   L   A   A   N   D   I   L   D   Y   K   D   D   D   D   K   V

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

ACCN:	NM_000075
ORF Size:	909 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:	NM_000075.2
RefSeq Size:	2020 bp
RefSeq ORF:	912 bp
Locus ID:	1019
UniProt ID:	P11802
Cytogenetics:	12q14.1
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
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:

Double digestion of RC201156L3 using SgfI and MluI