

Product datasheet for **RC228197**

CDK5 (NM_001164410) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: CDK5 (NM_001164410) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: CDK5
Synonyms: LIS7; PSSALRE
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC228197 representing NM_001164410
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCAGAAATACGAGAACTGGAAAAGATTGGGAAGGCACCTACGGAAGTGTGTTCAAGGCCAAAAACC
 GGGAGACTCATGAGATCGTGGCTCTGAAACGGGTGAGGCTGGATGACGATGATGAGGGTGTGCCGAGTTC
 CGCCCTCCGGGAGATCTGCCTACTCAAGGAGCTGAAGCACAAGAACATCGTCAGGCTTCATGACGTCCTG
 CACAGCGACAAGAAGCTGACTTTGGTTTTTGAATTCTGTGACCAGGACCTGAAGAAGTATTTTGACAGTT
 GCAATGGTGACCTCGATCCTGAGATTGTAAGAATGGGGAGCTGAAATTGGCTGATTTTGGCCTGGCTCG
 AGCCTTTGGGATTCCTCGCTGTTACTCAGCTGAGGTGGTCACACTGTGGTACCGCCACCGGATGTC
 CTCTTTGGGGCCAAGCTGTACTCCACGTCCATCGACATGTGGTCAGCCGGCTGCATCTTTGCAGAGCTGG
 CCAATGCTGGGCGGCCTCTTTTCCCGCAATGATGTCGATGACCAAGCTGCCAGACTATAAGCCATCCGACTGCT
 GGGGACGCCACCGAGGAGCAGTGGCCCTCTATGACCAAGCTGCCAGACTATAAGCCATCCGACTGATC
 CCGGCCACAACATCCCTGGTGAACGTGTCGCCAACTCAATGCCACAGGGAGGGATCTGCTGCAGAACC
 TTCTGAAGTGAACCTGTCCAGCGTATCTCAGCAGAAGAGGCCCTGCAGCACCCCTACTTCTCCGACTT
 CTGTCCGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC228197 representing NM_001164410
 Red=Cloning site Green=Tags(s)

MQKYEKLEKIGEGTYGTVFKAKNRETHEIVALKRVRLDDDDDEGVPSSALREICLLKELKHKNIIVRLHDVL
 HSDKKLTLVFEFCDQLKKYFDSCNGDLDP EIVKNGELKLADFLARAFGIPVRCYSAEVVTLWYRPPDV
 LFGAKLYSTSIDMWSAGCIFAELANAGRPLFPGNVDVDDQLKRIFRLLGTPTEEQWPSMTKLPDYKPYPMY
 PATTSLVNVVPKLNATGRDLLQNLKCNPVQRISAEELQHPYFSDFCPP

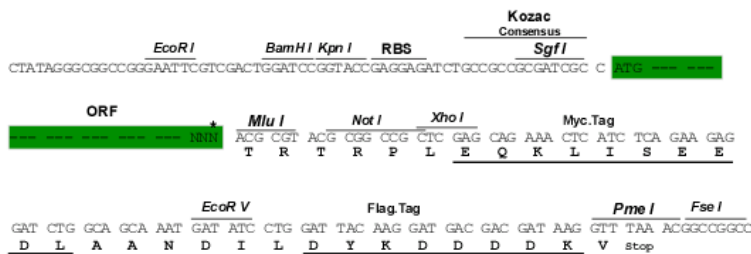
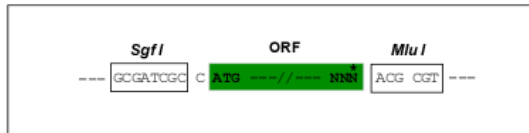
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1474_b12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001164410

ORF Size: 780 bp

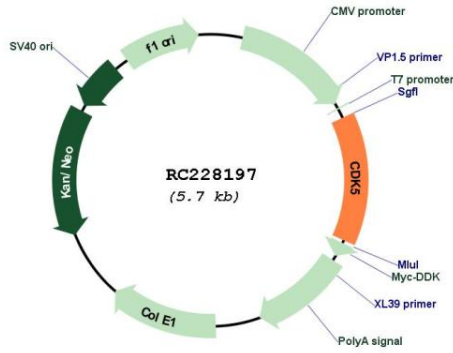
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

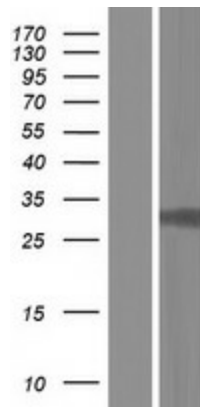
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_001164410.3
RefSeq ORF:	783 bp
Locus ID:	1020
UniProt ID:	Q00535
Cytogenetics:	7q36.1
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Alzheimer's disease, Axon guidance
MW:	29.4 kDa
Gene Summary:	<p>This gene encodes a proline-directed serine/threonine kinase that is a member of the cyclin-dependent kinase family of proteins. Unlike other members of the family, the protein encoded by this gene does not directly control cell cycle regulation. Instead the protein, which is predominantly expressed at high levels in mammalian postmitotic central nervous system neurons, functions in diverse processes such as synaptic plasticity and neuronal migration through phosphorylation of proteins required for cytoskeletal organization, endocytosis and exocytosis, and apoptosis. In humans, an allelic variant of the gene that results in undetectable levels of the protein has been associated with lethal autosomal recessive lissencephaly-7. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2015]</p>

Product images:



Circular map for RC228197



Western blot validation of overexpression lysate (Cat# [LY431225]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228197 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).