

Product datasheet for **RC202736**

CDK7 (NM_001799) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDK7 (NM_001799) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CDK7
Synonyms:	CAK; CAK1; CDKN7; HCAK; MO15; p39MO15; STK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202736 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCTGGACGTGAAGTCTCGGGCAAAGCGTTATGAGAAGCTGGACTTCCTTGGGGAGGGACAGTTTG
CCACCGTTTACAAGGCCAGAGATAAGAACCAACCAAAATTGTCGCCATTAAGAAAATCAAACCTGGACA
TAGATCAGAAGCTAAAGATGGTATAAATAGAACC GCCTTAAGAGAGATAAAATTATTACAGGAGCTAAGT
CATCCAAATATAATTGGTCTCCTTGATGCTTTTGGACATAAATCTAATATTAGCCTTGCTTTGATTTTA
TGGAAACTGATCTAGAGTTATAATAAAGGATAATAGTCTTGTGCTGACACCATCACACATCAAAGCCTA
CATGTTGATGACTCTTCAAGGATTAGAATATTTACATCGACATTGGATCTACATAGGGATCTGAAACCA
AACAACTTGTTGCTAGATGAAAATGGAGTTCTAAAAGTGGCAGATTTTGGCCTGGCCAAATCTTTTGGGA
GCCCAATAGAGCTTATACACATCAGGTTGAACCAGGTGGTATCGGGCCCCGAGTTACTATTTGGAGC
TAGGATGTATGGTGTAGGTGTGGACATGTGGGCTGTTGGCTGTATATTAGCAGAGTTACTTCAAGGGTT
CCTTTTTTGGCCAGGAGATTAGACCTTGATCAGCTAACAAGAATATTTGAAACTTTGGGCACACCAACTG
AGGAACAGTGGCCGGACATGTGTAGTCTCCAGATTATGTGACATTTAAGAGTTTCCCTGGAATACCTTT
GCATCACATCTTCAGTGCAGCAGGAGACGACTTACTAGATCTCATACAAGGCTTATTCTTATTTAATCCA
TGTGCTCGAATTACGGCCACACAGGCACTGAAAATGAAGTATTTTCAGTAATCGGCCAGGGCCACACCTG
GATGTCAGCTGCCAAGACCAAACTGTCCAGTGGAAACCTTAAAGGAGCAATCAAATCCAGCTTTGGCAAT
AAAAAGGAAAAGAACAGAGGCCTTAGAACAAGGAGGATTGCCAAGAACTAATTTTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202736 protein sequence
Red=Cloning site Green=Tags(s)

MALDVKSRAKRYEKLDFLGEGQFATVYKARDKNTNQIVAIAKKIKLGRSEAKDGINRTALREIKLLQELS
 HPNIIIGLLDAFGHKSNI SLVDFMETDLEVI IKDNSLVLTPSHIKAYMLTLQGLEYLHRHWILHRDLKP
 NNLLLDENGV LKLADFLAKSFGSPNRAYTHQVVTRWYRAPELLFGARMYGVGVDMWAVGCILAELLR V
 PFLPGDSDL DQLTRIFETLGTPT EEQWPD M CSLPDYVTFKSFPGIPLHHIFSAAGDDL DLIQGLFLFNP
 CARITATQAL KMKYF SNRPGPTPGCQLPRPNCPVETLKEQSNPALAIKRRKRTALEQGGLPKKLIF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6079_f12.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_001799

ORF Size: 1038 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:

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001799.4](#)

RefSeq Size: 1534 bp

RefSeq ORF: 1041 bp

Locus ID: 1022

UniProt ID: [P50613](#)

Cytogenetics: 5q13.2

Domains: pkinase, TyrKc, S_TKc

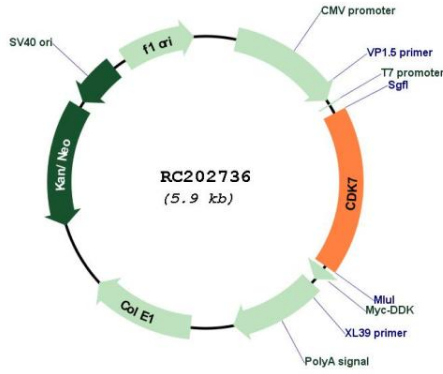
Protein Families: Druggable Genome, Protein Kinase, Stem cell - Pluripotency, Transcription Factors

Protein Pathways: Cell cycle, Nucleotide excision repair

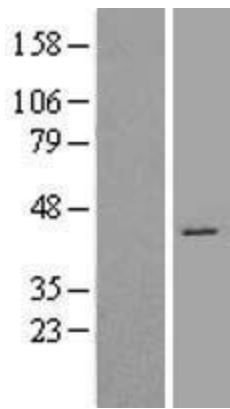
MW: 39.1 kDa

Gene Summary: The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of *Saccharomyces cerevisiae cdc28*, and *Schizosaccharomyces pombe cdc2*, and are known to be important regulators of cell cycle progression. This protein forms a trimeric complex with cyclin H and MAT1, which functions as a Cdk-activating kinase (CAK). It is an essential component of the transcription factor TFIID, that is involved in transcription initiation and DNA repair. This protein is thought to serve as a direct link between the regulation of transcription and the cell cycle. [provided by RefSeq, Jul 2008]

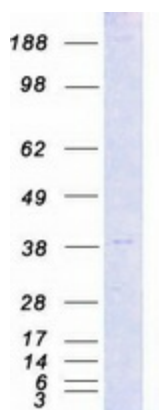
Product images:



Circular map for RC202736



Western blot validation of overexpression lysate (Cat# [LY419742]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202736 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CDK7 protein (Cat# [TP302736]). The protein was produced from HEK293T cells transfected with CDK7 cDNA clone (Cat# RC202736) using MegaTran 2.0 (Cat# [TT210002]).