

Product datasheet for **SC119024**

CDK7 (NM_001799) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDK7 (NM_001799) Human Untagged Clone
Tag:	Tag Free
Symbol:	CDK7
Synonyms:	CAK; CAK1; CDKN7; HCAK; MO15; p39MO15; STK1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_001799 edited
 ATGGCTCTGGACGTGAAGTCTCGGGCAAAGCGTTATGAGAAGCTGGACTTCCTTGGGGAG
 GGACAGTTTGCCACCGTTTACAAGGCCAGAGATAAGAATACCAACCAAATTGTCGCCATT
 AAGAAAATCAAACCTTGGACATAGATCAGAAGCTAAAGATGGTATAAATAGAACCGCCTTA
 AGAGAGATAAAATTATTACAGGAGCTAAGTCATCCAAATATAATTGGTCTCCTTGATGCT
 TTTGGACATAAATCTAATATTAGCCTTGTCTTTGATTTTATGGAACTGATCTAGAGGTT
 ATAATAAAGGATAATAGTCTTGTGCTGACACCATCACACATCAAAGCCTACATGTTGATG
 ACTCTTCAAGGATTAGAATATTTACATCAACATTGGATCCTACATAGGGATCTGAAACCA
 AACAACTTGTGCTAGATGAAAATGGAGTTCTAAAACCTGGCAGATTTTGGCCTGGCCAAA
 TCTTTTGGGAGCCCAATAGAGCTTATACACATCAGGTTGTAACCAGGTGGTATCGGGCC
 CCCGAGTTACTATTTGGAGCTAGGATGTATGGTGTAGGTGTGGACATGTGGGCTGTTGGC
 TGTATATTAGCAGAGTTACTTCTAAGGGTTCCTTTTTTGGCAGGAGATTCAGACCTTGAT
 CAGCTAACAAAGATATTTGAAACTTTGGGCACACCAACTGAGGAACAGTGGCCGGACATG
 TGTAGTCTCCAGATTATGTGACATTTAAGAGTTTCCCTGGAATACCTTTGCATCACATC
 TTCAGTGCAGCAGGAGACGACTTAGATCTCATACAAGGCTTATTCTTATTTAATCCA
 TGTGCTCGAATTACGGCCACACAGGCACTGAAAATGAAGTATTTTCAGTAATCGGCCAGGG
 CCAACACCTGGATGTCAGCTGCCAAGACCAAACTGTCCAGTGGAAACCTTAAAGGAGCAA
 TCAAATCCAGCTTTGGCAATAAAAAGGAAAAGAACAGAGGCCTTAGAACAAAGGAGGATTG
 CCAAGAAACTAATTTTTTAA



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001799 unedited
 NGTCGGAATTTGTATACGACTCCTATAGGGCGGCCGGAATTCGCACGAGGGGTAGCTTT
 AAATTCGTGTTGTCTGGGAGCTCGCCCTTTTCGGCTGGAGTCGGGCTTTACGGCGCCGG
 ATGGCTCTGGACGTGAAGTCTCGGGCAAAGCGTTATGAGAAGCTGGACTTCTTGGGGAG
 GGACAGTTTCCACCCTTTACAAGGCCAGAGATAAGAATACCAACCAAATGTGCGCCATT
 AAGAAAATCAAACCTTGGACATAGATCAGAAGCTAAAGATGGTATAAATAGAACCGCCTTA
 AGAGAGATAAAAATTATTACAGGAGCTAAGTCATCCAAATATAATTGGTCTCCTTGATGCT
 TTTGGACATAAAATCTAATATTAGCCTTGTCTTTGATTTTATGAAACTGATCTAGAGGTT
 ATAATAAAGGATAATAGTCTTGTGCTGACACCATCACACATCAAAGCCTACATGTTGATG
 ACTCTTCAAGGATTAGAATATTTACATCAACATTGGATCCTACATAGGGATCTGAAACCA
 AACAACTTGTGCTAGATGAAAATGGAGTTCTAAAACCTGGCAGATTTTGGCCTGGCCAAA
 TCTTTTGGGAGCCCAATAGAGCTTATACACATCAGGTTGTAACCAGGTGGTATCGGGCC
 CCCGAGTTACTATTTGGAGCTAGGATGTATGGTGTANGTGTGGACATGTGGGCTGTTGGC
 TGTATATTAGCAGAGTTACTTCTAAGGGTTCCTTTTTTCCAGNAGATTACAGACCTTGAT
 CAGCTAACAGAATATTTGAAACTTTGNGCACACCAACTGAGNAACAGTGGCCGGACATG
 TGTAGTCTCCAGAATATGTGACATTTAAGAGTTCCCTGGATACTTNGCATCACATCTC
 AGTGCC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001799 unedited
 GGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTAAATTTTTATTTTAAAATACAT
 TTAATAAAAATAACCCATAGTTTTACATATTTACATGTGTAGAATTTTACAACTCAC
 TTCTACAGCATTACTTAATGTTTACTATTTTCCATTATTTGCCTTTTGGCTATTTCC
 CTCAGTAGTAAAATGTTGTCCAGTGTCTCTTTAAAAAATTAGTTTCTTGGGCAATCCTC
 CTTGTTCTAAGGCTCTGTTCTTTTCTTTTATTGCCAAAGCTGGATTTGATTGCTCCT
 TTAAGGTTTTCCACTGGACAGTTTGGTCTTGGCAGCTGACATCCAGGTGTTGGCCCTGGCC
 GATTACTGAAATACTTCAATTTTTCAGTGCCTGTGTGGCCGTAATTCGAGCACATGGATTAA
 ATAAGAATAAGCCTTGTATGAGATCTAGTAAGTCGTCTCCTGCTGCACTGAAGATGTGAT
 GCAAAGGTATCCAGGGAAACTCTAAATGTCACATAATCTGGAAGACTACACATGTCCG
 GCCACTGTTCTCAGTTGGTGTGCCAAAGTTTCAAATATTCTTGTTAGCTGATCAAGGT
 CTGAATCTCCTGGCAAAAAGGAACCCCTAGAAGTAACTCTGCTAATATACAGCCAACAG
 CCCACATGTCCACACCTACACCATACATCCTAGCTCAAATAGTAACTCGNGGCGCGAT
 ACCACCTGGTTACAACCTGATGTGATAAGCTCTATTGGGGCTCCAAAAGAATTGGCCA
 GGCCAAAATCTGCCAGTTTTAGAACTCCATTCTCATCTAGCAACCCAGTGTGTTGNTTCA
 GATCCCTATGTAGATCCAAGTTGATGTAATATCTAATCCTTGAGAGTCTCACCTGTTAG
 CTTGAGGGTGATGGGTACCACAGAAATATCCTTATTAACCCCTAACAGTTCATAAAA
 CAAGCAAGCTAATTAAT

Restriction Sites:

NotI-NotI

ACCN:

NM_001799

Insert Size:

1280 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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_001799.2](#), [NP_001790.1](#)

RefSeq Size: 1427 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

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 TFIIH, 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]