

Product datasheet for **RC225970**

CDC7 (NM_001134420) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDC7 (NM_001134420) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CDC7
Synonyms:	CDC7L1; HsCDC7; Hsk1; huCDC7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC225970 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGGCGTCTTTGGGATTAGATGGATGAGCCAATGGCTTTTCTCCCAGCGTGACCGGTTTCAGG
 CTGAAGGCTCTTTAAAAAAGCAGCAGAAATTTAACTTGCAGGTGTTAAAAAGATATTGAGAAGCT
 TTATGAAGCTGTACCACAGCTTAGTAATGTGTTTAAAGATTGAGGACAAAATTGGAGAAGGCACTTTCAGC
 TCTGTTTATTTGGCCACAGCACAGTTACAAGTAGGACCTGAAGAGAAAATTGCTCTAAAACACTTGATTC
 CAACAAGTCATCTATAAGAATTGCAGCTGAACCTCAGTGCCTAACAGTGGCTGGGGGCAAGATAATGT
 CATGGGAGTTAAATACTGCTTTAGGAAGAATGATCATGTAGTTATTGCTATGCCATATCTGGAGCATGAG
 TCGTTTTTGGACATTCTGAATTCTTTCTTTCAAGAAGTACGGGAATATATGCTTAATCTGTTCAAAG
 CTTTGAACGCATTATCAGTTTGGTATTGTTCCCGTGTGTTAAGCCAGCAATTTTTATATAATAG
 GCGCCTGAAAAAGTATGCCTTGGTAGACTTTGGTTTGGCCCAAGGAACCCATGATACGAAAATAGAGCTT
 CTTAAATTTGTCCAGTCTGAAGCTCAGCAGGAAAGGTGTTCAAAAACAATCCACATAATCACAGGAA
 ACAAGATTCAGTGGCCAGTACCTAAGGAGCTGGATCAGCAGTCCACCACAAAAGCTTCTGTAA
 AAGACCTACACAAATGCACAAATTCAGATTAACAAGGAAAAGACGGAAAGGAGGGATCTGTAGGCCTT
 TCTGTCCAGCGCTCTGTTTTGGAGAAAGAAATTTCAATATACACAGCTCCATTTACATGAGAGCCCTG
 CAGTGAACCTCATGAAGCAGTCAAAGACTGTGGATGACTGTCTAGAAAGTTAGCAACAAAAAAGAGGC
 TATTTCTACAAAAGTTATGAATAGTGTGTGATGAGGAAAAGTCCAGTTCTTGCCAGCTAGCCTGACC
 TGTGACTGCTATGCAACAGATAAAGTTTGTAGTATTTGCCTTTCAAGGCGTCAGCAGGTTGCCCTAGGG
 CAGGTACACCAGGATTCAGAGCACCAGAGGCTTGACAAAAGTCCCAATCAAACACTCAGCAATGACAT
 GTGGTCTGCAGGTGTCATATTTCTTTCTTGTAGTGGACGATATCCATTTTATAAAGCAAGTGATGAT
 TTAAGTCTTTGGCCAAATTATGACAATTAGGGGATCCAGAGAACTATCCAAGCTGCTAAAACCTTTG
 GGAAATCAATATTATGTAGCAAAGAAGTCCAGCACAAGACTTGAGAAAAGCTGCTGTGAGAGACTCAGGGG
 TATGGATTCTAGCACTCCCAAGTAAACAAGTGATATAAAGGCGATGCTTCTCATCAACCAGCTATTTCA
 GAGAAGACTGACCATAAAGCTTCTGCCTGTTCAAACACCTCCAGGACAATACTCAGGGAAATTCATTTA
 AAAAGGGGATAGTAATAGCTGTGAGCATTGTTTTGATGAGTATAATACCAATTTAGAAGGCTGGAATGA
 GGTACCTGATGAAGCTTATGACCTGCTTGATAAATCTAGATCTAAATCCAGCTTCAAGAATAACAGCA
 GAAGAAGCTTTGTGCATCCATTTTTAAAGATATGAGCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC225970 protein sequence
 Red=Cloning site Green=Tags(s)

MEASLGIQMDEPMAFSPQRDRFQAEGLKKNQNFKLAVKVDIEKLYEAVPQLSNVFKIEDKIGEGTFS
 SVYLATAQLQVGPPEEKIALKHLIPTSHPIRIAELQCLTVAGGQDNVMGVKCFRKNHVVIIAMPYLEHE
 SFLDLINLSLFQEVREYMLNLFKALKRIHQFGIVHRDVKPSNFLYNRRLKKYALVDFGLAQGTHDKIEL
 LKFVQSEAAQERCSQNKSHIITGNKIPLSGVPKELDQQSTTKASVKRPYTNAQIQKQKDGKEGVSGL
 SVQRSVFGERNFNIHSSISHESPAVKLMKQSKTVDVLSRKLATKKKAISTKVMNSAVMRKTASSCPASLT
 CDCYATDKVCSICLSRRQQVAPRAGTPGFRAPEVLTKCPNQTTAIDMWSAGVIFLSLLSGRYPFYKASDD
 LTALAQIMTIRGSRETIQAAKTFGKSILCSKEVPAQDLRKLCELRGMDSTPKLTSDIQGHASHQPAIS
 EKDTHKASCLVQTPPGQYSGNSFKKGDNSCEHCFDEYNTNLEGWNEVPDEAYDLLDKLLDLPASRITA
 EALLHPFFKDMSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6244_c09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_001134420

ORF Size: 1722 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.

RefSeq: [NM_001134420.1](#), [NP_001127892.1](#)

RefSeq Size: 3316 bp

RefSeq ORF: 1725 bp

Locus ID: 8317

UniProt ID: [O00311](#)

Cytogenetics: 1p22.1

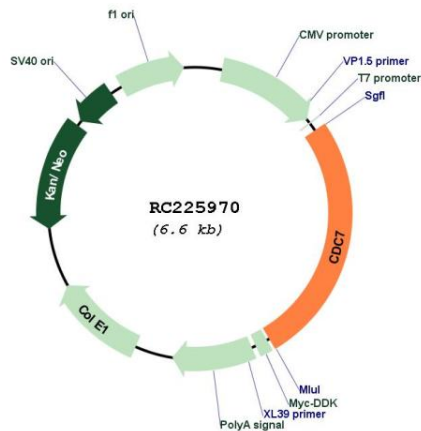
Protein Families: Druggable Genome, Protein Kinase, Stem cell - Pluripotency

Protein Pathways: Cell cycle

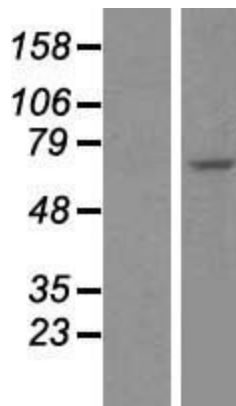
MW: 63.9 kDa

Gene Summary: This gene encodes a cell division cycle protein with kinase activity that is critical for the G1/S transition. The yeast homolog is also essential for initiation of DNA replication as cell division occurs. Overexpression of this gene product may be associated with neoplastic transformation for some tumors. Multiple alternatively spliced transcript variants that encode the same protein have been detected. [provided by RefSeq, Aug 2008]

Product images:



Circular map for RC225970



Western blot validation of overexpression lysate (Cat# [LY427428]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225970 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).