

## Product datasheet for **RC206814**

### CDC6 (NM\_001254) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CDC6 (NM_001254) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CDC6
Synonyms:	CDC18L; HsCDC6; HsCDC18; MGORS5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC206814 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCTCAAACCCGATCCAGGCACAGGCTACAATCAGTTTTCCAAAAAGGAAGCTGTCTCGGGCATTGA  
 ACAAAGCTAAAACTCCAGTGATGCCAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCG  
 TGTAAAAGCCCTGCCTCTCAGCCCCAGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTTA  
 CCTCCTTGTCTCCACCAAAGCAAGGCAAGAAAGAGAATGGTCCCCCTCACTCACATACCTTAAGGGAC  
 GAAGATTGGTATTTGACAATCAGCTGACAATTAAGTCTCTAGCAAAAGAGAAGCTAGCCAAAGTTACCA  
 AAACAAAATACTTTCTCAGTTAGAAAAAGTCAAGAGATCACAACAAATCTGAGCAGAGATGTCCACTG  
 AAGAAAGAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACTTGCTACCAGCAAGCAAAGCTGGTCC  
 TGAACACAGCTGTCCAGATCGGCTGCCAGGAAAGGGAGATGGATGTCATCAGGAATTTCTTGAG  
 GGAACACATCTGTGGAAAAAGCTGGAAGCCTTACCTTCTGGTGCTCCTGGAAGTGGAAAAACTGCC  
 TGCTTAAGCCGGATTCTGCAAGACCTCAAGAAGGAACTGAAAGGCTTTAAACTATCATGCTGAATTGCA  
 TGTCTTGAGGACTGCCAGGCTGATTCCAGCTATTGCTCAGGAGATTTGTCAGGAAGAGGTATCCAG  
 GCCAGCTGGGAAGGACATGATGAGGAAATTGAAAAACATATGACTGCAGAGAAGGGCCCATGATTGTG  
 TTGGTATTGGACGAGATGGATCAACTGGACAGCAAAGGCCAGGATGATTGTACACGCTATTTGAATGGC  
 CATGGCTAAGCAATCTCACTTGGTGCTGATTGGTATTGCTAATACCCTGGATCTCACAGATAGAATTCT  
 ACCTAGGCTTCAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACCTCCACCTTATACCAGAAATCAG  
 ATAGTCACTATTTTGAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTC  
 AATTCTGTGCCGCAAAGTCTCTGCTGTTTCAGGAGATGTTCCGAAAGCACTGGATGTTTGCAGGAGAC  
 TATTGAAATTGTAGAGTCAGATGTCAAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAATCACCT  
 TCTGAGCCTCTGATTCCCAAGAGGGTGGTCTTATTACATATCCCAAGTCATCTCAGAAATTGATGGTA  
 ACAGGATGACCTTGAGCCAAGAAGGAGCACAAGATTCCTTCCCTCTCAGCAGAAGATCTTGGTTTGCTC  
 TTTGATGCTCTTGATCAGGCAGTTGAAAATCAAAGAGGTCAGTCTGGGGAAGTTATGAAGCCTACAGT  
 AAAGTCTGTGCAAAACAGCAGGTGGCGGCTGTGGACCAGTCAAGTGTGTTGCTACTTTCCAGGCTCTTG  
 AAGCCAGGGCATTGTTAGGATTAAGAGAAACAAGGAAACCCGTTTGACAAAGGTGTTTTCAAGATTGA  
 AGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGAAATATCTTAGCTACTGGATTGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC206814 protein sequence  
 Red=Cloning site Green=Tags(s)

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQTVTCSPRVKALPLSPRKRLGDDNLCNTPHL  
 PPCSPPKQKKGPPHSHTLKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVRKSQEITTNSEQRCP  
 KKEACVRLFKQEGTCYQAKLVNNTAVPDRLPAREREMDVIRNFLREHICGKKAGSLYSGAPGTGKTA  
 CLSRILQDLKELKGFKTIMLNCMSLRTAQAVFPAIAQEQEEVSRPAGKMMRKLEKHMATAEKGP  
 MIVLVLDEMDQLDSKGQDVL YTLFEWPWLSNSHLVLIIGIANTLDLTDRIPLRLQAREKCKPQLLNFP  
 PYTRNQIVTILQDRLNQVSRDQVLDNAAVQFCARKVSAVSGDVRKALDVCRRRAIEIVESDVKSQTIL  
 KPLSECKSPSEPLIPKRVGLIHISQVISEIDGNRMQLSQEQAQDSFPLQKILVCSLMLLIRQLKIK  
 EVTLGKLYEAYSKVCRKQQAQVAVDQSECLSLGSLLEARGILGLKRNKETRLTKVFFKIEEKEIEH  
 ALKDKALIGNILATGLP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6177\\_g04.zip](https://cdn.origene.com/chromatograms/mk6177_g04.zip)

**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



ACCN: NM\_001254

ORF Size: 1680 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\\_001254.4](#)

RefSeq Size: 3053 bp

RefSeq ORF: 1683 bp

Locus ID: 990

UniProt ID: [Q99741](#)

Cytogenetics: 17q21.2

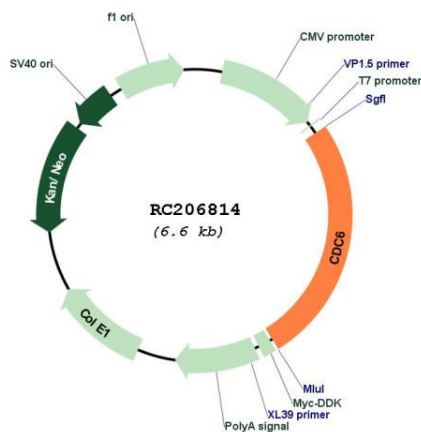
Domains: AAA, AAA

Protein Pathways: Cell cycle

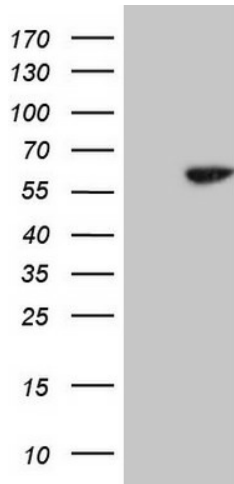
MW: 62.7 kDa

**Gene Summary:** The protein encoded by this gene is highly similar to *Saccharomyces cerevisiae* Cdc6, a protein essential for the initiation of DNA replication. This protein functions as a regulator at the early steps of DNA replication. It localizes in cell nucleus during cell cycle G1, but translocates to the cytoplasm at the start of S phase. The subcellular translocation of this protein during cell cycle is regulated through its phosphorylation by Cdks. Transcription of this protein was reported to be regulated in response to mitogenic signals through transcriptional control mechanism involving E2F proteins. [provided by RefSeq, Jul 2008]

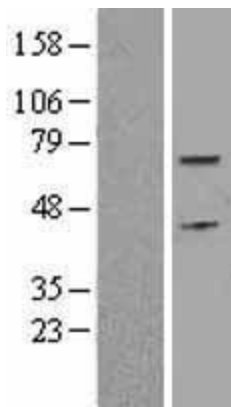
### Product images:



Circular map for RC206814



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CDC6 (Cat# RC206814, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDC6 (Cat# [TA808381])(1:500). Positive lysates [LY400502] (100ug) and [LC400502] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400502]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206814 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).