

## Product datasheet for **RC230219**

### CDC45L (CDC45) (NM\_001178011) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CDC45L (CDC45) (NM_001178011) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CDC45L
Synonyms:	CDC45L; CDC45L2; MGORS7; PORC-PI-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC230219 representing NM\_001178011  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTTCTGTCCGATTTCCGCAAAGAGTCTACGAGGTGGTCCAGAGCCAGAGGGTCTTCTCTTCTGTGG  
 CCTCGGACGTGGATGCTCTGTGTGCGTGAAGATCCTTCAGGCCTTGTCCAGTGTGACCACGTGCAATA  
 TACGCTGGTTCCAGTTTCTGGGTGGCAAGAACTTGAAACTGCATTTCTTGAGCATAAAGAACAGATCAAA  
 TTACTCATTAAACAAGATGATGACCTTGAAGTCCCGCCTATGAAGACATCTTCAGGGATGAAGAGGAGG  
 ATGAAGAGCATTAGGAAATGACAGTGTGGGTGACAGCCTTCTGAGAAGCGCACACGGTTAGAAGAGGA  
 GATAGTGGAGCAAACCATGCGGAGGAGGACGGCGAGAGTGGGAGGCCCGGAGAAGAGACATCCTCTTT  
 GACTACGAGCAGTATGAATATCATGGGACATCGTCAGCCATGGTATGTTTGTGAGTGGCTTGGATGCTGT  
 CCAAGGACCTGAATGACATGCTGTGGTGGCCATCGTTGGACTAACAGACCAGTGGGTGCAAGACAAGAT  
 CACTCAAATGAAATACGTGACTGATGTTGGTGTCTGCAGCGCCAGTTCCTCCGCAACAACCACCGAAC  
 GAGGATGAGGAGAACACACTCTCCGTGGACTGCACACGGATCTCCTTTGAGTATGACCTCCGCTGGTGC  
 TCTACCAGCACTGGTCCCTCCATGACAGCCTGTGCAACACCAGCTATACCGCAGCCAGGTTCAAGCTGTG  
 GTCTGTGCATGGACAGAAGCGGCTCCAGGAGTTCCTTGCAGACATGGGTCTTCCCCTGAAGCAGGTGAAG  
 CAGAAGTTCAGGCCATGGACATCTCCTTGAAGGAAATTTGCGGGAAATGATTGAAGAGTCTGCAATA  
 AATTTGGGATGAAGGACATGCGCGTGCAGACTTTCAGCATTATTTTGGGTTCAAGCACAAAGTTTCTGGC  
 CAGCGACGTGGTCTTGGCCACTGTCTTGTGAGAGCCCCGAGAAGGATGGCTCAGGGACAGATCAC  
 TTCATCCAGGCTCTGGACAGCCTCTCCAGGAGTAACTGGACAAGCTGTACCATGGCCTGGAACCTGCCA  
 AGAAGCAGCTGCGAGCCACCCAGCAGACCATTGCCAGTGCCTTTCACCAACCTCGTCACTCCAGGG  
 GCCTTTTCTGTACTGCTCTCTCATGGAGGGCACTCCAGATGTCATGCTGTTCTCTAGGCCGGCATCCCTA  
 AGCCTGCTCAGCAAACACCTGCTCAAGTCTTTGTGTTCGACAAGAACCAGGCTGCAAACTGCTGC  
 CCCTGGTGTGGTGCCTCCCTGAGCATGGAGCATGGCACAGTACCCTGGTGGGATCCCCCAGAGAC  
 CGACAGCTCGGACAGGAAGAAGTCTTTTGGGAGGGCGTTTGAAGAAGCAGCGAAAGCACCAGCTCCCGG  
 ATGCTGCACAACCTTTGACCTCTCAGTAATTGAGCTGAAAGCTGAGGATCGGAGCAAGTTTCTGGACG  
 CACTTATTTCCCTCCTGTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC230219 representing NM\_001178011  
 Red=Cloning site Green=Tags(s)

MFVSDFRKEFYEVVQSQRVLLFVASDVALCACKILQALFQCDHVQYTLVPVSGWQELETAFLEHKEQIK  
 LLIKQDDLEVPAYEDIFRDEEEDDEHSGNDSGSEPSEKRTRLEEEIVEQTMRRRQRREWEARRRDILF  
 DYEQYEHGTSSAMVMFELAWMLSKDLNDMLWWAIVGLTDQWVQDKITQMKYVTDVGVLRHVSRHNHRN  
 EDEENTLSVDCTRISFEYDLRLVLYQHWSLHDSLNCNTSYTAARFKLWSVHGQKRLQEFADMGLPLKQVK  
 QKFQAMDISLKENLREMIIESANKFGMKDMRVQTFIHFQFKHKFLASDVVFATMSLMESPEKDGSGTDH  
 FIQALDSLRSNLDKLYHGLELAKKQLRATQQTIASCLCTNLVISQGPFLYCSLMEGTPDVMLFSRPASL  
 SLLSKHLLKSFVCSTKNRRCKLLPLVMAAPLSMEHGTVTVVGIPPETDSSDRKNFFGRAFEKAAESTSSR  
 MLHNHFDLSVIELKAEDRSKFLDALISLLS

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8065\\_b08.zip](https://cdn.origene.com/chromatograms/mk8065_b08.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001178011

**ORF Size:** 1560 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\\_001178011.2](#), [NP\\_001171482.1](#)

**RefSeq ORF:** 1563 bp

**Locus ID:** 8318

**UniProt ID:** [O75419](#)

**Cytogenetics:** 22q11.21

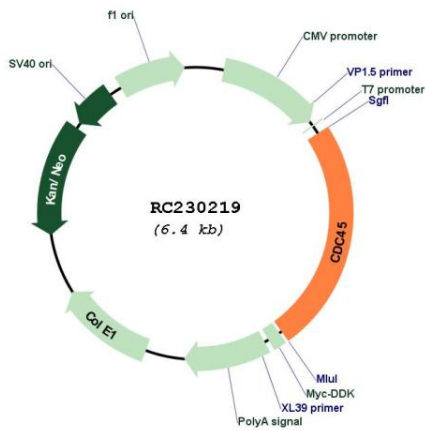
**Protein Families:** Druggable Genome, Stem cell - Pluripotency

**Protein Pathways:** Cell cycle

**MW:** 60.7 kDa

**Gene Summary:** The protein encoded by this gene was identified by its strong similarity with *Saccharomyces cerevisiae* Cdc45, an essential protein required to the initiation of DNA replication. Cdc45 is a member of the highly conserved multiprotein complex including Cdc6/Cdc18, the minichromosome maintenance proteins (MCMs) and DNA polymerase, which is important for early steps of DNA replication in eukaryotes. This protein has been shown to interact with MCM7 and DNA polymerase alpha. Studies of the similar gene in *Xenopus* suggested that this protein play a pivotal role in the loading of DNA polymerase alpha onto chromatin. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]

**Product images:**



Circular map for RC230219