

Product datasheet for **RC230325**

CDC45L (CDC45) (NM_001178010) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDC45L (CDC45) (NM_001178010) 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:

>RC230325 representing NM_001178010
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTCTGTGTCGATTTCCGCAAAGAGTCTACGAGGTGGTCCAGAGCCAGAGGGTCTTCTCTTCTGTGG
 CCTCGGACGTGGATGCTCTGTGTGCGTGAAGATCCTTCAGGCCTTGTCCAGTGTGACCACGTGCAATA
 TACGCTGGTTCCAGTTTCTGGGTGGCAAGAACTTGAAGTGCATTTCTTGTAGCATAAAGAACAGTTTCAT
 TATTTTATTCTCATAAACTGTGGAGCTAATGTAGACCTATTGGATATTCTTCAACCTGATGAAGACACTA
 TATTCTTTGTGTGTGACACCCATAGGCCAGTCAATGTCGTCAATGTATACAACGATACCCAGATCAAATT
 ACTCATTAAACAAGATGATGACCTTGAAGTTCCTCGCTATGAAGACATCTTCAGGGATGAAGAGGAGGAT
 GAAGAGCATTAGGAAATGACAGTGTGGGTGAGGCCTTCTGAGAAGCGCACACGGTTAGAAGAGGAGA
 TAGTGGAGCAAACCATGCGGAGGAGGCAGCGGCAGAGTGGGAGGCCGAGTGGCTCTGGGAGTGAACC
 TGTGGCCGCTGCATTGGAGAAGAGCTCCAGGTTGTTGCGCCGTCATGAGTACAGGACAGCCCAAGG
 TCTCCCAGAAGAGACATCCTCTTTGACTACGAGCAGTATGAATATCATGGACATCGTCAGCCATGGTGA
 TGTTTGAGCTGGCTTGGATGCTGTCCAAGGACCTGAATGACATGCTGTGGTGGGCCATCGTTGGACTAAC
 AGACCACTGGGTGCAAGACAAGATCACTCAAATGAAATACGTGACTGATGTTGGTGTCTGCAGCGCCAC
 GTTTCCCGCCACAACCACCGGAACGAGGATGAGGAGAACACACTCTCCGTGGACTGCACACGGATCTCCT
 TTGAGTATGACCTCCGCCTGGTGTCTACCAGCACTGGTCCCTCCATGACAGCCTGTGCAACACCAGCTA
 TACCGCAGCCAGGTTCAAGCTGTGGTCTGTGCATGGACAGAAGCGGCTCCAGGAGTTCCTTGACAGATG
 GGTCTTCCCCTGAAGCAGGTGAAGCAGAAGTCCAGGCCATGGACATCTCCTTGAAGGAGAATTTGCGGG
 AAATGATTGAAGAGTCTGCAAAATAAATTTGGGATGAAGGACATGCGCGTGCAGACTTTTCAAGTTCATT
 TGGGTTCAAGCACAAGTTTCTGGCCAGCAGCTGGTCTTTGCCACCATGTCTTTGATGGAGAGCCCGAG
 AAGGATGGCTCAGGGACAGATCACTTATCCAGGCTCTGGACAGCCTCTCCAGGAGTAACCTGGACAAGC
 TGTACCATGGCCTGGAACCTGCCAAGAAGCAGCTGCGAGCCACCCAGCAGACATTGCCAGCTGCCTTTG
 CACCAACCTCGTCATCTCCAGGGGCTTTCTGTACTGCTCTCATGGAGGGCACTCCAGATGTCATG
 CTGTTCTTAGGCCGGCATCCCTAAGCCTGCTCAGCAAACACCTGCTCAAGTCTTTGTGTGTTGACAA
 AGAACCAGCGCTGCAAACTGCTGCCCTGGTGTGGTGGCCCCCTGAGCATGGAGCATGGCACAGTGC
 CGTGGTGGGCATCCCCCAGAGACCGACAGCTCGGACAGGAAGAACTTTTTTGGGAGGGCGTTTGAAG
 GCAGCGAAAGCACCAGCTCCCGATGCTGCACAACATTTTGACCTCTCAGTAATTGAGCTGAAAGCTG
 AGGATCGGAGCAAGTTTCTGGACGCACTTATTTCCCTCCTGTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230325 representing NM_001178010
 Red=Cloning site Green=Tags(s)

MFVSDFRKEFYEVVQSQRVLLFVASDVALCACKILQALFQCDHVQYTLVPVSGWQELETAFLEHKEQFH
 YFILINCGANVDLLDILQPEDTIFVCDTHRPVNVVNVYNDTQIKLLIKQDDDLVPAVEDIFRDEEED
 EEHSGNDSGSEPSEKRTRLEEEIVEQTMRRRQRREWEARSGSGSEPVAALAKSSRLFAGPMSDRTPR
 SPRRDILFDYEQYEHGTSSAMVMFELAWMLSKDLNDMLWVAIVGLTDQWVQDKITQMKYVTDVGVLRH
 VSRHNRNEENTLSVDCTRISFEYDLRLVLQYHWSLHDSLNTSYTAARFKLWSVHGQKRLQEFADM
 GLPLKQVKQKQFQAMDISLKENLREMIIEESANKFGMKDMRVQTFSIHFQKHKFLASDVVFATMSLMESPE
 KDGSQDHFIAQDLSLRSNLDKLYHGLELAKKQLRATQQTIASCLNTLVISQGPFLYCSLMEGTPDVM
 LFSRPASLSLLSKHLLKSFVCSKTNRRCKLLPLVMAAPLSMEHGTVTVVGIPPETDSSDRKNFFGRAFEK
 AAESTSSRMLHNFHDLVIELKAEDRSKFLDALISLLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8069_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001178010

ORF Size: 1794 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_001178010.2](#), [NP_001171481.1](#)

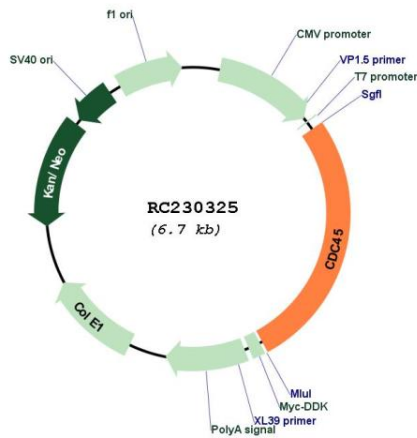
RefSeq ORF: 1797 bp

Locus ID: 8318

UniProt ID: [O75419](#)

Cytogenetics:	22q11.21
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Cell cycle
MW:	69.2 kDa
Gene Summary:	The protein encoded by this gene was identified by its strong similarity with <i>Saccharomyces cerevisiae</i> 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 <i>Xenopus</i> 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 RC230325