

Product datasheet for **RG230325**

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:	TurboGFP
Symbol:	CDC45L
Synonyms:	CDC45L; CDC45L2; MGORS7; PORC-PI-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG230325 representing NM_001178010
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTCTGTGTCGATTTCCGCAAAGAGTCTACGAGGTGGTCCAGAGCCAGAGGGTCTTCTCTTCTGTGG
 CCTCGGACGTGGATGCTCTGTGTGCGTGAAGATCCTTCAGGCCTTGTTCCAGTGTGACCACGTGCAATA
 TACGCTGGTTCAGTTTCTGGGTGGCAAGAACTTGAAACTGCATTTCTTGAGCATAAAGAACAGTTTCAT
 TATTTTATTCTCATAAACTGTGGAGCTAATGTAGACCTATTGGATATTCTTCAACCTGATGAAGACACTA
 TATTCTTTGTGTGTGACACCCATAGGCCAGTCAATGTCGTCAATGTATACAACGATACCCAGATCAAATT
 ACTCATTAACAAGATGATGACCTTGAAGTTCCCGCTATGAAGACATCTTCAGGGATGAAGAGGAGGAT
 GAAGAGCATTAGGAAATGACAGTGTGGGTGAGGCCTTCTGAGAAGCGCACACGGTTAGAAGAGGAGA
 TAGTGGAGCAAACCATGCGGAGGAGGCAGCGGCAGAGTGGGAGGCCCGAGTGGCTCTGGGAGTGAACC
 TGTGGCCGCTGCATTGGAGAAGAGCTCCAGGTTGTTGCGCGGTCCCATGAGTGACAGGACAGCCCAAGG
 TCTCCCAGAAGAGACATCCTCTTTGACTACGAGCAGTATGAATATCATGGGACATCGTCAGCCATGGTGA
 TGTTTGAGCTGGCTTGGATGCTGTCCAAGGACCTGAATGACATGCTGTGGTGGGCCATCGTTGGACTAAC
 AGACCAGTGGGTGCAAGACAAGATCACTCAAATGAAATACGTGACTGATGTTGGTGTCTGCAGCGCCAC
 GTTCCCGCCACAACCACCGGAACGAGGATGAGGAGAACACACTCTCCGTGGACTGCACACGGATCTCCT
 TTGAGTATGACCTCCGCCTGGTGTCTACCAGCACTGGTCCCTCCATGACAGCCTGTGCAACACCAGCTA
 TACCGCAGCCAGGTTCAAGCTGTGGTCTGTGCATGGACAGAAGCGGCTCCAGGAGTTCCTTGACAGATG
 GGCTTTCCCTGAAGCAGGTGAAGCAGAAGTCCAGGCCATGGACATCTCCTTGAAGGAGAATTTGCGGG
 AAATGATTGAAGAGTCTGCAAATAAATTTGGGATGAAGGACATGCGCGTGCAGACTTTTCAGCATTTCAT
 TGGGTTCAAGCACAAGTTTCTGGCCAGCGACTGGTCTTTGCCACCATGCTTTGATGGAGAGCCCGAG
 AAGGATGGCTCAGGGACAGATCACTTATCCAGGCTCTGGACAGCCTCTCCAGGAGTAACCTGGACAAGC
 TGTACCATGGCCTGGAACCTGCCAAGAAGCAGCTGCGAGCCACCCAGCAGACATTGCCAGCTGCCTTTG
 CACCAACCTCGTCATCTCCAGGGGCTTTCTGTACTGCTCTCATGGAGGGCACTCCAGATGTCATG
 CTGTTCTTAGGCCGGCATCCCTAAGCCTGCTCAGCAAACACCTGCTCAAGTCTTTGTGTGTTGACAA
 AGAACCAGCGCTGCAAACCTGCTGCCCTGGTGTGGTGGCCCCCTGAGCATGGAGCATGGCACAGTGAC
 CGTGGTGGGCATCCCCCAGAGACCGACAGCTCGGACAGGAAGAACTTTTTGGGAGGGCGTTTGAAG
 GCAGCGAAAGCACCAGCTCCCGATGCTGCACAACATTTTGACCTCTCAGTAATTGAGCTGAAAGCTG
 AGGATCGGAGCAAGTTTCTGGACGCACTTATTTCCCTCCTGTCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG230325 representing NM_001178010
 Red=Cloning site Green=Tags(s)

MFVSDFRKEFYEVVQSQRVLLFVASDVDALCACKILQALFQCDHVQYTLVPVSGWQELETAFLEHKEQFH
 YFILINCGANVDLLDILQPDEDTIFFVCDTHRPVNVVNYNDTQIKLLIKQDDLEVPAYEDIFRDEEED
 EEHSGNDSGSEPKRTRLEEEIVEQTMRRRQRREWEARSGSGSEPVAAALEKSSRLFAGPMSDRTAPR
 SPRRDILFDYEQYEHGTSSAMVMFELAWMLSKDLNDMLWVAIVGLTDQWVQDKITQMKYVTDVGVLQRH
 VSRHNRNEDEENTLSVDCTRISFEYDLRLVLQHWSLHDSLNTSYTAARFKLWSVHGQKRLQEFADLM
 GLPLKQVKQKQFQAMDISLKENLREMIIEESANKFGMKDMRVQTFSIHFGFKHKFLASDVVFATMSLMESPE
 KDGSGETDHFIQALDSLRSNLDKLYHGLELAKKQLRATQQTIASCLCTNLVSIQGPFLYCSLMEGTPDVM
 LFSRPASLSLLSKHLLKSFVCSKTNRRCKLLPLVMAAPLSMEHGTVTVVGIPPETDSSDRKNFFGRAFEK
 AAESTSSRMLHNFHDLVIELKAEDRSKFLDALISLLS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-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 Size: 2036 bp

RefSeq ORF: 1797 bp

Locus ID: 8318

UniProt ID: [O75419](#)

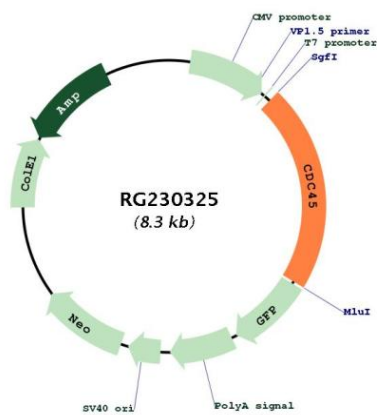
Cytogenetics: 22q11.21

Protein Families: Druggable Genome, Stem cell - Pluripotency

Protein Pathways: Cell cycle

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 RG230325