

## Product datasheet for **RC200821**

### CDCA3 (NM\_031299) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CDCA3 (NM_031299) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CDCA3
Synonyms:	GRCC8; TOME-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200821 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCTCAGCCAAGAGCGTCCAGTCACACCAGCGCGGCTCCGCCGACAACAAGCATCTGGCTCGAG  
TGGCGGACCCCGTTACCTAGTGCTGGCATCCTGCGCACTCCCATCCAGGTGGAGAGCTCTCCACAGCC  
AGGCCTACCAGCAGGGGAGCAACTGGAGGGTCTTAAACATGCCCAGGACTCAGATCCCCGCTCTCCTACT  
CTTGGTATTGCACGGACACCTATGAAGACCAGCAGTGGAGACCCCCAAGCCCACTGGTGAACAGCTGA  
GTGAAGTATTTGAACTGAAGACTCTAAATCAAATCTTCCCCAGAGCCTGTTCTGCCCCAGAGGCACC  
TTTATCTTCTGAATTGGACTTGCCTCTGGGTACCCAGTTATCTGTTGAGGAACAGATGCCACCTTGAAC  
CAGACTGAGTTCCCTCCAAACAGGTGTTTTCCAAGGAGGAAGCAAGACAGCCCACAGAAACCCCTGTGG  
CCAGCCAGAGCTCCGACAAGCCCTCAAGGGACCTGAGACTCCCAGATCTTCAGGTTCTATGCGCAATAG  
ATGGAAACCAACAGCAGCAAGGTAAGGAGATCCCCCTCACCATCCTGCAGGATGACAACCTCCCT  
GGCACCCTGACACTACGACAGGGTAAGCGGCCTTACCCCTAAGTGAAAATGTTAGTGAACAAAGGAAG  
GAGCCATTCTTGAAGTGGACGACTTCTGAAAACCTGGAGGACGAGCATGGGAGCAAGGCCAGGACCATGA  
CAAGGAAAATCAGCACTTTCCTTGGTGGAGAGC

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA


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**Protein Sequence:** >RC200821 protein sequence  
 Red=Cloning site Green=Tags(s)

MGSAKSVPTPARPPPHNKLARVADPRSPSAGILRTPIQVESSPQPGLPAGEQLEGLKHAQSDPRSPT  
 LGIARTPMKTSSGDPPSPLVKQLSEVFETEDSKSNLPPEPVLPEAPLSSELDLPLGTQLSVEEQMPPWN  
 QTEFPSKQVFSKEEARQPTETPVASQSSDKPSRDPETPRSSGSMRNRWKPNSKVLGRSPLTILQDDNSP  
 GTLTLRQGKRPSLSENVSELKEGAILGTGRLLKTGGRAWEQGDHDKENQHFLVES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6061\\_a06.zip](https://cdn.origene.com/chromatograms/mk6061_a06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_031299

**ORF Size:** 804 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\\_031299.7](#)

**RefSeq Size:** 1944 bp

**RefSeq ORF:** 807 bp

**Locus ID:** 83461

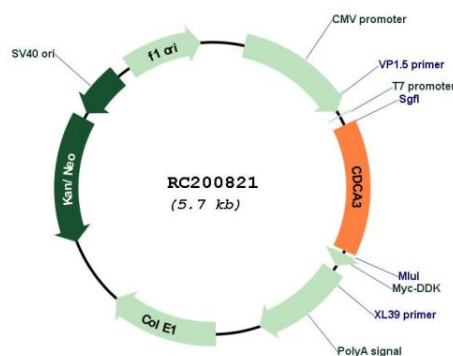
**UniProt ID:** [Q99618](#)

**Cytogenetics:** 12p13.31

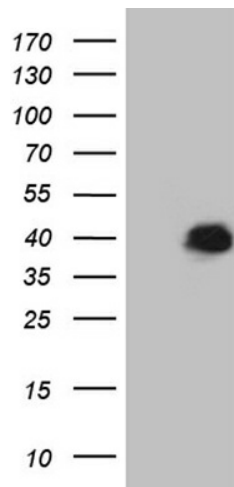
**MW:** 29 kDa

**Gene Summary:** F-box-like protein which is required for entry into mitosis. Acts by participating in E3 ligase complexes that mediate the ubiquitination and degradation of WEE1 kinase at G2/M phase (By similarity).[UniProtKB/Swiss-Prot Function]

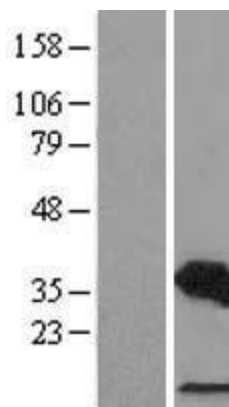
## Product images:



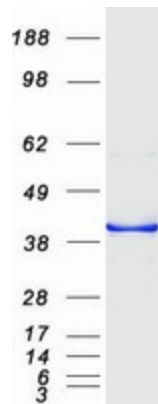
Circular map for RC200821



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CDCA3 (Cat# RC200821, 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-CDCA3 (Cat# [TA811696])(1:2000). Positive lysates [LY410572] (100ug) and [LC410572] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY410572]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200821 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CDCA3 protein (Cat# [TP300821]). The protein was produced from HEK293T cells transfected with CDCA3 cDNA clone (Cat# RC200821) using MegaTran 2.0 (Cat# [TT210002]).