

## Product datasheet for **RC214325**

### **CDC25A (NM\_201567) Human Tagged ORF Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                       |
| Product Name:             | CDC25A (NM_201567) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                   |
| Symbol:                   | CDC25A                                    |
| Synonyms:                 | CDC25A2                                   |
| Mammalian Cell Selection: | Neomycin                                  |
| Vector:                   | pCMV6-Entry (PS100001)                    |
| E. coli Selection:        | Kanamycin (25 ug/mL)                      |



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**ORF Nucleotide Sequence:**

>RC214325 representing NM\_201567  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAAGTGGCCCGGAGCCCCGACCGCCGCCCTGCTCTTCGCCTGCAGCCCCCTCCCGCTGCG  
 AGCCCGTCGTGAAGGCGCTATTTGGCGCTTCAGCCGCGGGGACTGTCGCCTGTACCAACCTGACCGT  
 CACTATGGACCAGCTGCAGGGTCTGGGCAGTGATTATGAGCAACCACTGGAGGTGAAGAACAACAGTAAT  
 CTGCAGAGAATGGGCTCCTCCGAGTCAACAGATTCAGGTTTCTGTCTAGATTCTCCTGGGCCATTGGACA  
 GTAAGAAAACCTTGAAAATCCTATGAGAAGAATACATCCCTACCTCAGAAGCTGTTGGGATGTAGTCC  
 AGCTCTGAAGAGGAGCCATTCTGATTCTTTGACCATGACATCTTTCAGCTCATCGACCCAGATGAGAAC  
 AAGGAAAATCTTCTCAAATGAAAGAGATAGCAGTGAACCAGGGAATTCATTCCTCTTTTACACCCC  
 AGTCACCTGTGACAGCCACTTTGTCTGATGAGGATGATGGCTTCGTGGACCTTCTCGATGGAGAGAATCT  
 GAAGAATGAGGAGAGACCCCTCGTGCATGGCAAGCCTCTGGACAGCTCCTCTCGTCATGAGAACTACA  
 AACCTTGACAACCGATGCAAGCTGTTGACTCCCTTCCCTGTGTAGCTCCAGCACTCGGTCAAGTGTGA  
 AGAGACCAAGAACGATCTCAAGAGGAGTCTCACCTGGAAGTACAAGAGGAGGAAGAGCATGTCTGGGGC  
 CAGCCCCAAAGAGTCAACTAATCCAGAGAAGGCCATGAGACTCTTATCAGTCTTTATCCCTGGCATCT  
 TCCCCAAAGGAACCATGAGAACATTTGGACAATGACCCAAGGGACCTTATAGGAGACTTCTCCAAGG  
 GTTATCTCTTTCATACAGTTGCTGGAAACATCAGGATTTAAAATACATCTCTCCAGAAATTATGGCATC  
 TGTTTTGAATGGCAAGTTGCCAACCTCATTAAAGAGTTGTTATCATCGACTGTCGATACCCATATGAA  
 TACGAGGGAGGCCACATCAAGGGTGCAGTGAACCTGCACATGGAAGAAGAGGTTGAAGACTTCTTATTGA  
 AGAAGCCATTGTACCTACTGATGGCAAGCGTGCATTGTTGTGTTTCACTGCGAGTTTTCTTCTGAGAG  
 AGGTCCCCGCATGTGCCGATATGTGAGAGAGAGATCGCCTGGGTAATGAATACCCCAAACCTCCACTAC  
 CCTGAGCTGTATGCTCCTGAAGGGGGATACAAGGAGTTCTTTATGAAATGCCAGTCTTACTGTGAGCCCC  
 CTAGCTACCGGCCATGCACCACGAGGACTTTAAAGAAGACCTGAAGAAGTTCGACCAAGAGCCGGAC  
 CTGGGCAGGGGAGAAGAGCAAGAGGGAGATGTACAGTCGCTGAAGAAGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC214325 representing NM\_201567  
 Red=Cloning site Green=Tags(s)

MELGPEPPHRRLLFACSPPPASQPVVKALFGASAAGGLSPVTNLTVTMDQLQGLGSDYEQPLEVKNNNSN  
 LQRMGSSESTDSGFCLDSPGPLDSKENLENPMRRIHSLPQKLLGCSPALKRSHSDSLDHDIFQLIDPDEN  
 KENLSSNERDSSEPGNFIPLFTPQSPVTATLSDEDDGFVDLLDGENLKNEEETPSCMASLWTAPLVMRTT  
 NLDNRCKLFDSPSLCSSSTRSVLKRPERSQEESPPGSTKRRKSMGASPKESTNPEKAHETLHQSLSLAS  
 SPKGTIENILDNDPRDLIGDFSKGYLFHTVAGKHQDLKYISPEIMASVLNGKFANLIKEFVIIDCRYPYE  
 YEGGHIKAVNLHMEEEVEDFLLKKPIVPTDGKRVIVVFHCEFSSERGPRMCRYVREDRDLGNEYPKLHY  
 PELVYLKGGYKEFFMKCQSYCEPPSYRPMHHEDFKEDLKKFRTKSRTWAGEKSKREMYSLKLL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_201567

ORF Size: 1452 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\\_201567.2](#)

RefSeq Size: 3597 bp

RefSeq ORF: 1455 bp

Locus ID: 993

UniProt ID: [P30304](#)

**Cytogenetics:** 3p21.31

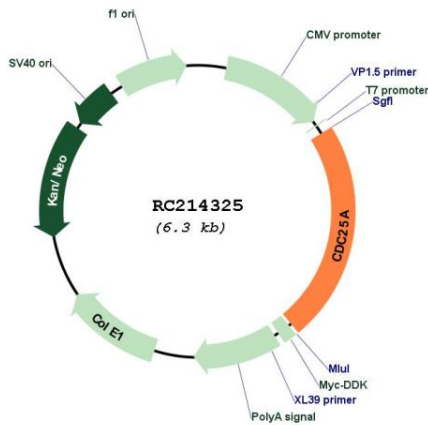
**Protein Families:** Druggable Genome, Phosphatase

**Protein Pathways:** Cell cycle, Progesterone-mediated oocyte maturation

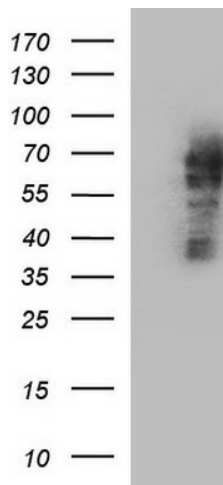
**MW:** 54.4 kDa

**Gene Summary:** CDC25A is a member of the CDC25 family of phosphatases. CDC25A is required for progression from G1 to the S phase of the cell cycle. It activates the cyclin-dependent kinase CDC2 by removing two phosphate groups. CDC25A is specifically degraded in response to DNA damage, which prevents cells with chromosomal abnormalities from progressing through cell division. CDC25A is an oncogene, although its exact role in oncogenesis has not been demonstrated. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RC214325



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CDC25A (Cat# RC214325, 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-CDC25A (Cat# [TA590333]).