

Product datasheet for **RN200085**

Cdc14a (NM_001107718) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cdc14a (NM_001107718) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Cdc14a
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN200085 representing NM_001107718
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCAGCGGAGTCAGGGAACTAATCGGGCTTGCAGTTCATGAAAGATCGATTATATTTTGCTACTT
 TAAGGAATAGACCAAAAAGCACAATAAATATCCACTATTTCTCCATCGACGAGGAGCTGGTCTATGAAAA
 TTTCTATGCAGATTTTGGACCTCTGAACCTGGCAATGGGTACAGATACTGCTGTAAAGCTAAACAAGAAA
 CTAATAATCATAAGTTTCAAGAAAGAAAATAGTGCCTACACCTCTTTCGACCAGCGAAAAGAGCAA
 ACGCAGCATTCTGATAGGTGCTTATGCCGTCTACTTAAAGAAGACACCAGAAGAAGCGTACAGAGC
 TCTCTGTCTGGCTCAAACCTCCTTATCTTCCATTAGGGATGCGTCTTTGAAATTGCACCTTACAAC
 CTCACCGTCTTGACTGTTTACAAGGAATCAGAAAGGATTACAGCATGGATTTTTGACTTTGAGACAT
 TTGATGCGGATGAATATGAACACTATGAGCGAGTTGAAAATGGGACTTCAACTGGATCGTTCAGGAAA
 ATTTTTAGCATTTAGTGGACCACATCCTAAAAGCAAAATGAAAATGGTTACCCTCTCCAGCTCCTGAA
 GCCTACTTTCCGTATTTCAAAAAGAACAACGTGACAACAATCGTGAGATTGAATAAAAAGATTTATGAGG
 CGAAGCGCTTACAGACGCTGGCTTCGAGCACTACGACCTGTTCTTCATAGATGGCAGCACCCCCAGCGA
 CAACATCGTGCGAAGATTCTGAACATCTGTGAGAACACGGAGGGGGCCATTGCGGTCCACTGCAAAGCT
 GGTCTGGGGAGAAGTGGGACTTTGATAGCTGTTACGTCATGAAACACTACAGGTTACACACGCTGAAA
 TCATCGCTTGGATCAGAAATTTGTCGACCAGGCTCCATCATTGGACCCAGCAGCATTTCTGGAAGAGAA
 ACAAGCATCATTGTTGGTCCAAGGAGACATTTTCGATCCAACTGAAAATAGACCGTCCAGTGAAGGA
 AGTATTACTAAAATTTCTAGCTTGGATGATATGCTATTGCTGGAACTTATCTAAATTACAAAAGCA
 CAGAAAGGATTGGAGAGAATAATTTTGAAGACGAAGATATGAAAATTAACAAACGTAACGCAGGGAGA
 CAAACTACGTGCCTTAAAAAGCCAGAGGACGCCCGCTCCTCGCCATCCTGTGCATTTAGGTCAGATGAT
 ATGAAAGGACACCAAGGGCAGTGGCCAGACTTTCAGATTAAGTTCTTACCACAACCAACAGTGCCGA
 CTGTGAAGACCCCAAAGTGTGTTGTCCCTTCACTGACAGCCAAAAGGATAAGCAGAGGTTCTCTGTC
 TTCAGGAGCAAACATAAGAAGCTTCTCCATAAATCCCGCTAGCCAGTCCCTGGGAACTTGAATTCT
 GGGACAGAAGAACTGAGAACAAAAGACCACATACCCATCAAGGCTGCTTTCATAGCCAGCCCGTTCA
 CCAGCTTCTTGAATGGCAGCACCCAGACACCTGGCAGAACTACCCTGAGCTCAACAACAATCAGTACAC
 CAGAAGCAGCAACAGCAGCAGCGCGGCAGTCTGGGGCAACCTGAACAGCTCTCAAGCGCCAAGCCC
 GAGGAGCATAACACCATCCTTAGACCTTCTTCTCGGGGCGCTCTTCTCTCTCAGTGAGATTCTGTA
 GCCGTTCTATACCTGTAAGTTTACAGACACCACCTCTCAGTCTCAGAACCCTGAATGCAACTTCTGTAC
 CTTGCCTTCCAGCCAGGCTGCCACCAAGAAATTTAATAGTGCCAAGGAAACCTTATGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001107718
- Insert Size:** 1881 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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_001107718.2](#), [NP_001101188.2](#)

RefSeq Size: 2613 bp

RefSeq ORF: 1881 bp

Locus ID: 310806

Cytogenetics: 2q41

Gene Summary: The protein encoded by this gene is a dual-specificity phosphatase that preferentially dephosphorylates cyclin dependent kinase substrates to regulate the cell cycle. In human cell lines, this protein localizes to interphase chromosomes, and depletion of the transcript results in centrosome separation and cytokinesis defects. In mouse, the protein localizes to the nucleus of prophase I arrested oocytes and then becomes dispersed in meiotically competent oocytes. Knockdown of the protein delays exit from metaphase I and results in eggs with chromosomal abnormalities and elevated aneuploidy, demonstrating a function in regulation of meiosis. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2015]

Transcript Variant: This variant (2) uses an alternate splice site in the 3' coding region and an alternate 3' terminal exon, resulting in a novel 3' coding region and 3' UTR compared to variant 1. It encodes isoform 2, which has a shorter and distinct C-terminus compared to isoform 1.