

Product datasheet for **RR200085**

Cdc14a (NM_001107718) Rat Tagged ORF Clone

Product data:

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



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ORF Nucleotide Sequence:

>RR200085 representing NM_001107718
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCAGCGGAGTCAGGGAACTAATCGGGCTTGCAGTTCATGAAAGATCGATTATATTTTGCTACTT
 TAAGGAATAGACCAAAAAGCACAATAAATATCCACTATTTCTCCATCGACGAGGAGCTGGTCTATGAAAA
 TTTCTATGCAGATTTTGACCTCTGAACCTGGCAATGGGTACAGATACTGCTGTAACTAAACAAGAAA
 CTAATATCATAAGTTTCAAGAAAGAAAATAGTGCCTACACCTCTTCGACCAGCGAAAAGAGCAA
 ACGCAGCATTCTGATAGGTGCTTATGCCGTCTACTTAAAGAAGACACCAGAAGAAGCGTACAGAGC
 TCTCTGTCTGGCTCAAACCTCCTTATCTCCATTACAGGGATGCGTCTTTGAAATTCGACTTACAAC
 CTCACCGTCTTGACTGTTTACAAGGAATCAGAAAGGATTACAGCATGGATTTTTGACTTTGAGACAT
 TTGATGCGGATGAATATGAACACTATGAGCGAGTTGAAAATGGGACTTCAACTGGATCGTTCAGGAAA
 ATTTTTAGCATTTAGTGGACCACATCTAAAAGCAAAATGAAAATGGTTACCCTCTCCAGCTCCTGAA
 GCCTACTTTCCGTATTTCAAAAAGAACAACGTGACAACAATCGTGAGATTGAATAAAAAGATTTATGAGG
 CGAAGCGCTTACAGACGCTGGCTTCGAGCACTACGACCTGTTCTTCATAGATGGCAGCACCCCCAGCGA
 CAACATCGTGCGAAGATTCTGAACATCTGTGAGAACACGGAGGGGGCCATTGCGGTCCACTGCAAAGCT
 GGTCTGGGGAGAAGTGGGACTTTGATAGCTGTTACGTGATGAAACACTACAGGTTACACACGCTGAAA
 TCATCGCTTGGATCAGAAATTTGTCGACCAGGCTCCATCATTGGACCCAGCAGCATTTCCTGGAAGAGAA
 ACAAGCATCATTGTTGGTCCAAGGAGACATTTTCGATCCAACTGAAAATAGACCGTCCAGTGAAGGA
 AGTATTACTAAAATTTCTAGCTTGGATGATATGCTATTGCTGGAACTTATCTAAATTACAAGCA
 CAGAAAGGATTGGAGAGAATAATTTTGAAGACGAAGATATGAAAATTAACAACAACGTAACGCAGGGAGA
 CAAACTACGTGCCTTAAAAGCCAGAGGAGCCCGCTCCTCGCCATCCTGTGCATTTAGGTCAGATGAT
 ATGAAAGGACACCAAGGCGAGTGGCCAGACTTTCAGATTAAGTTCTTACCACAACCAACAGTCCCGA
 CTGTGAAGACCCCAAGTGTGTTGTCCCTTCACTGACAGCCAAAAGGATAAGCAGAGGTTCTCTGTC
 TTCAGGAGCAAACATAAGAAGCTTCTCCATAAATCCCGCTAGCCAGTTCCTGGGAACTTGAATTCT
 GGGACAGAAGAACTGAGAACAAAAGACCACATACCCATCAAGGCTGCTTTCATAGCCAGCCCGTTCA
 CCAGCTTCTTGAATGGCAGCACCCAGACACCTGGCAGAACTACCCTGAGCTCAACAACAATCAGTACAC
 CAGAAGCAGCAACAGCAGCAGCGCGGCGAGTCTGGGGCAACCTGAACAGCTCTCAAGCGCAAGCCC
 GAGGAGCATAACACCATCCTTAGACCTTCTTCTCGGGGCGCTCTTCTCTCTCAGTGAAGATTCTGA
 GCCGTTCTATACCTGTAAGTTCACAGACACCACCTCTCAGTCTCAGAACCCTGAATGCAACTTCTGTAC
 CTTGCCTTCCAGCCAGGCTGCCACCAAGAAATTTAATAGTGCCAAGGAAACCTTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR200085 representing NM_001107718
 Red=Cloning site Green=Tags(s)

MAAESGELIGACEFMKDRLYFATLNRPKSTINIHYFSIDEELVYENFYADFGLPLNLMVYRYCCKLNKK
 LKSYSLSRKKIVHYTSFDQRKRANAFLIGAYAVIYLLKTPPEAYRALLSGSNPPYLPFRDASFGNCTYN
 LTVLDCLQGIRKGLQHGFDFEFTDADEYEHYERVENGFNWI VPGKFLAFSGPHPKSKIENGYPLHAPE
 AYFPYFKNNVTTIVRLNKKIYEAKRFTDAGFEHYDLFFIDGSTPSDNI VRRFLNICENTEGAI AVHCKA
 GLGRTGLTIACYVMKHYRFTHAEIIAWIRICRPGSIIIGPQQHFLEEKQASLWVQGDIFRSKLNKRPSSSE
 SITKIISSLDDMSIAGNLSKLQSTERIGENNFEDMEIKNNVTQGDKL RALKSQRQPRSSPSCAFRSD
 MKGHQRAVAQTFRLSSSPQPTVPTVKPKVCLSPSVTAKRISRGLSSGANIRSFINSRLASSLGNLNS
 GTEETENKTTSPIKAFAIAPFTSFLNGSTQTPGRNYPELNQYTRSSNSSSSGSLGGLNLSPPSAKP
 EEHNTILRPSFSGALSSSVRFLSRIPVSSQTPPLSPQNPECNFCTLPSPRLPPKFKNSAKETL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

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:	<ol style="list-style-type: none"> 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:	<u>NM_001107718.2, NP_001101188.2</u>
RefSeq Size:	2613 bp
RefSeq ORF:	1881 bp
Locus ID:	310806
Cytogenetics:	2q41
MW:	70 kDa
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]