

Product datasheet for **MR218991**

Cdc14b (NM_001122989) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cdc14b (NM_001122989) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cdc14b
Synonyms:	2810432N10Rik; A530086E13Rik; AA472821; Cdc14B1; CDC14B3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>MR218991 representing NM_001122989
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGACGGGAGGGCGCAGGGACCCCTCTGATGGCCGAGGTGATCCGAGATCGCCTTTGTTTTGCCATTC
 TCTACAGCAGACCAAAGAGTGAACAAACGAACATTATTTTCAGCATAGATAACGAGCTAGAGTATGAGAA
 CTTCTATGCGGATTTTGGACCACTCAATCTGGCCATGGTTTACAGATATTGTTGCAAGATAAATAAGAAG
 CTCAAGTCCATTACAATGCTGAGGAAGAAAATTATCCATTTTACTGGCACTGATCAGAGAAAAGCAAGCGA
 ATGCCGCTTCTTGTGCGGTGTATATGGTTATATATTTGGGGAGGACACCAGAAGACGCGTATAGAAC
 ATTAATCTTCCGAGATACAGCCTATATTCCTTTCAGAGATGCTGCCTATGGAAGCTGCAGTTTCTATATT
 ACATTTCTCGACTGTTTTACGCAGTAAAGAAGGCAATGCAGTATGGCTTCTTTAATTTCAACTCATTTA
 ACCTTGACGAATATGAACACTATGAAAAAGCAGAAAATGGAGATTTCAACTGGATAATACCAGAGCGATT
 TCTTGCTTCTGTGGGCCCATCAAGATCCAGGCTGAAAAGTGGTTACCACCAACATTCTCCGGAGACT
 TATATTCATATTTTAAAGATCACAATGTAACCTACCATTATTCGTCCTGAATAAAAAGGATGTATGATGCTA
 AGCGCTTTACGGATGCTGGATTCGATCACCATGATCTTTTCTTCCGGATGGCAGCACCCCTGCTGAGTC
 AATTGTCCAAGATTTCTGGATTTTGTGAAAATGTCAAGGGTGCCATTGCTGTGCATTGCAAAGCTGGC
 CTTGGTCGAACAGGCACTCTGATAGGCTGCTACCTCATGAAGCATTACAGGATGACAGCAGCTGAGAGCA
 TTGCCTGGCTCAGAATCTGTAGACCCGGCTCAGTAATGGGCCCCAGCAACAGTTTCTGGTCATGAAACA
 ATCAAGCCTCTGGCTAGAAGGCGACTATTTCCGTCAAAAGTTAAGAGGGCAGGAGAATGGCCCCCTCAGA
 GAAGCCTTCTCCAAACACCTTTCGGATGCTGATGACCTGCTTAAATGGGCTTGAGAATCAAGACAATC
 AAGAGCCTGAGCCGTATAGTGATGATGAATCAGTGAATGACACAAGGAGACAGACTTCGGGCCCT
 GAAAAGCCGGAGACAGCCGAAAGCCAGCGCTATCCCCCTCACATGTCCCCTAGCTGTGCTGACCTCTGCA
 CTGTGTAGTGTGCCATCTGGTGGATTGTGTGACTACATTCTCCACCCTGCTGTTCTGTCTTGATG
 GCTTCAGAACACAG

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR218991 representing NM_001122989
 Red=Cloning site Green=Tags(s)

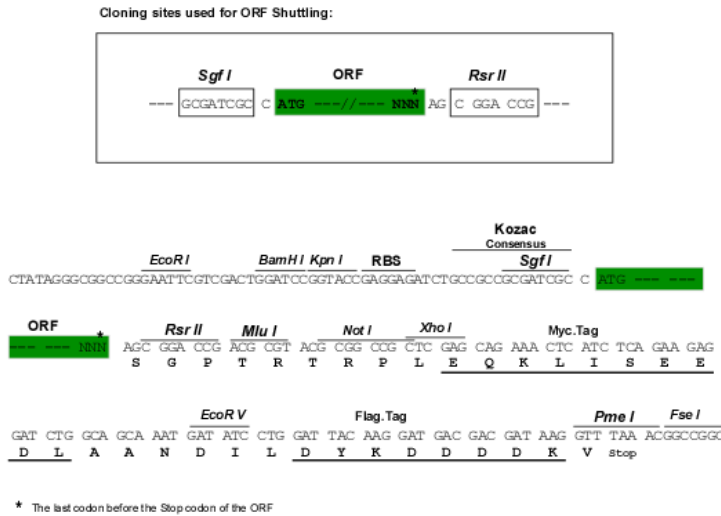
MRREGAGTPLMAEVIRDRLCFAILYSRPKSATNEHYFSIDNELEYENFYADFGLNPLAMVYRYCCKINKK
 LKSITMLRKKIIHFTGTDQRKQANAFLVGCYMIYLRGTPEDAYRTLIFGDTAYIPFRDAAAYGSCSFYI
 TLLDCFHAVKKAMQYGFNFNSFNLDYEYEHYKAENGFNWIIPERFLAFCGPHSRSRLESYHGHSPET
 YIPYFKNHNVTTIIRLNKRMYPDARFTDAGFDHDLFFPDGSTPAESIVQEFLDICENVKGAIHVHCKAG
 LGRTGLIGCYLMKHYRMTAAESIWLRI CRPGSVIGPQQQLVMKQSSLWLEGDYFRQKLRGQENGLR
 EAFSKHLSADDDLSLNGLENQDNQEPYSDDEVS GMTQGDRLRALKSRRPKASAIPLTCLAVLTSAL
 LCSVAIWWIVCDYILPTLLFCLDGFRTQ

SGPTRRRLEQKLISEEDLAANDILDYKDDDDKV

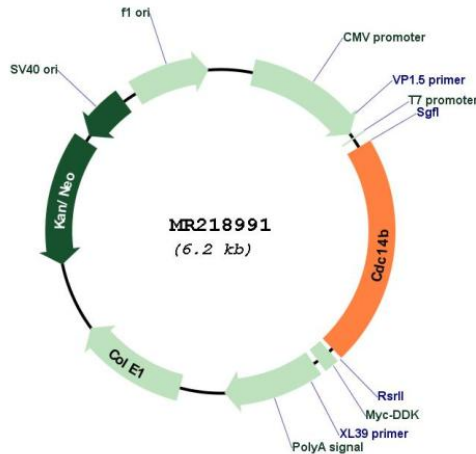
Restriction Sites:

Sgfl-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: NM_001122989

ORF Size: 1344 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_001122989.1](#), [NP_001116461.1](#)

RefSeq Size: 5595 bp

RefSeq ORF: 1347 bp

Locus ID: 218294

UniProt ID: [Q6PFY9](#)

Cytogenetics: 13 B3

MW: 51.9 kDa

Gene Summary: Dual-specificity phosphatase involved in DNA damage response. Essential regulator of the G2 DNA damage checkpoint: following DNA damage, translocates to the nucleus and dephosphorylates FZR1/CDH1, a key activator of the anaphase promoting complex/cyclosome (APC/C). Dephosphorylates SIRT2 around early anaphase. Dephosphorylation of FZR1/CDH1 activates the APC/C, leading to the ubiquitination of PLK1, preventing entry into mitosis. Preferentially dephosphorylates proteins modified by proline-directed kinases (By similarity). [UniProtKB/Swiss-Prot Function]