

## Product datasheet for **MG218991**

### **Cdc14b (NM\_001122989) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cdc14b (NM_001122989) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cdc14b
Synonyms:	2810432N10Rik; A530086E13Rik; AA472821; Cdc14B1; CDC14B3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG218991 representing NM\_001122989  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGACGGGAGGGCGCAGGGACCCTCTGATGGCCGAGGTGATCCGAGATCGCCTTTGTTTGGCCATTC  
 TCTACAGCAGACCAAAGAGTGCAACAAACGAACATTATTTTCAGCATAGATAACGAGCTAGAGTATGAGAA  
 CTTCTATGCGGATTTTGGACCACTCAATCTGGCCATGGTTTACAGATATTGTTGCAAGATAAATAAGAA  
 CTTCAAGTCCATTACAATGCTGAGGAAGAAAATTATCCATTTTACTGGCACTGATCAGAGAAAAGCAAGCGA  
 ATGCCGCCTTCTTGTGCGGTGTATATGGTTATATTTGGGGAGGACACCAGAAGACGCGTATAGAAC  
 ATTAATCTTCGGAGATACAGCCTATATTCCTTTCAGAGATGCTGCCTATGGAAGCTGCAGTTTCTATATT  
 ACATTCTCGACTGTTTTACGCAGTAAGAAGGCAATGCAGTATGGCTTCTTTAATTTCAACTCATTTA  
 ACCTTGACGAATATGAACACTATGAAAAAGCAGAAAATGGAGATTTCAACTGGATAATACCAGAGCGATT  
 TCTTGCCTTCTGTGGGCCCATCAAGATCCAGGCTGGAAGTGGTTACCACCAACATTCTCCGGAGACT  
 TATATTCATATTTTAAAGATCACAATGTAACCTACCATTATTCGTCCTGAATAAAAGGATGTATGATGCTA  
 AGCGCTTACGGATGCTGGATTCGATCACCATGATCTTTTCTTCCGGATGGCAGCACCCCTGCTGAGTC  
 AATTGTCCAAGAAATTTCTGGATATTTGTGAAAATGTCAAGGGTGCCATTGCTGTGCATTGCAAAAGCTGGC  
 CTTGGTCGAACAGGCACTCTGATAGGCTGCTACCTCATGAAGCATTACAGGATGACAGCAGCTGAGAGCA  
 TTGCTGGCTCAGAATCTGTAGACCCGGCTCAGTAATGGGCCCCAGCAACAGTTTCTGGTCATGAAACA  
 ATCAAGCCTCTGGCTAGAAGCGGACTATTTCCGTCAAAGTTAAGAGGGCAGGAGAATGGCCCCCTCAGA  
 GAAGCCTTCTCCAACACCTTTCGGATGCTGATGACCTGTCCTTAAATGGCTTGAGAATCAAGACAATC  
 AAGAGCCTGAGCCGATAGTGATGATGATGAAGTCAGTGAATGACACAAGGAGACAGACTTCGGGCCCT  
 GAAAAGCCGGAGACAGCCGAAAGCCAGCGCTATCCCCCTCACATGTCCCCTAGCTGTGCTGACCTCTGCA  
 CTGTGTAGTGTGCCATCTGGTGGATTGTGTGACTACATTCTCCACCCCTGCTGTTCTGTCTTGATG  
 GCTTCAGAACACAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG218991 representing NM\_001122989  
 Red=Cloning site Green=Tags(s)

MRREGAGTPLMAEVIRDRLCFAILYSRPKSATNEHYFSIDNELEYENFYADFGLPLNLAMVYRYCCKINKK  
 LKSITMLRKKIIHFTGTDQRKQANAFLVGCYMIYLRTPEDAYRTLIFGDTAYIPFRDAAYGSCSFYI  
 TLLDCFHAVKKAMQYGFNFNSFNLDEYEHYKAENGFNWIIPERFLAFCGPHSRSRLESGYHQHSPET  
 YIPYFKNHNVTTIIRLNKRMYDAKRFTDAGFDHDLFFPDGSTPAESIVQEFLDICENVKGAIHVHCKAG  
 LGRTGTLIGCYLMKHRYMTAAESIAWLRI CRPGSVIGPQQQLVMKQSSLWLEGDYFRQKLRGQENGLR  
 EAFSKHLSADDSLNLNLENQDNQEPYSDDEVS GMTQGDRLRALKSRQPKASAIPLTCPLAVL TSA  
 LCSVAIWWIVCDYILPTLLFCLDGFRTQ

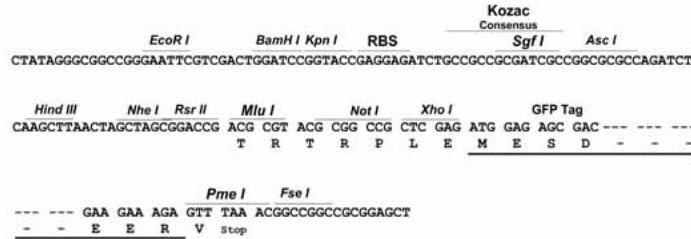
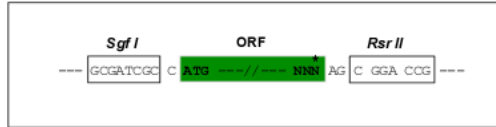
SGP**TRRRLE** - GFP Tag - V

**Restriction Sites:**

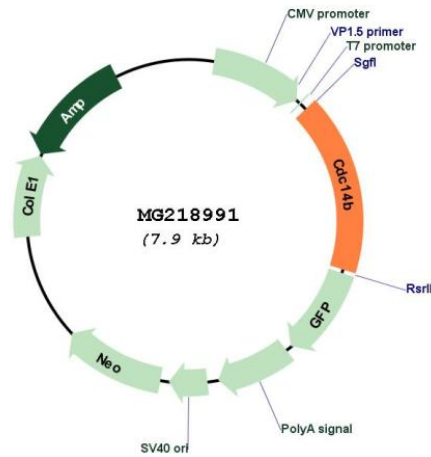
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001122989.1</u> , <u>NP_001116461.1</u>
<b>RefSeq Size:</b>	5595 bp
<b>RefSeq ORF:</b>	1347 bp
<b>Locus ID:</b>	218294
<b>UniProt ID:</b>	<u>Q6PFY9</u>
<b>Cytogenetics:</b>	13 B3
<b>Gene Summary:</b>	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]