

## Product datasheet for **RG216838**

### **CDC25B (NM\_004358) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CDC25B (NM_004358) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CDC25B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG216838 representing NM\_004358  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGGTGCCCCAGCCGGAGCCCGCGCCAGGCTCGGCTCTCAGTCCAGCAGCGTGTGCGGTGGCGCCC  
 AGCGTCCGGGCCACCTCCCGGGCTCCTGCTGGGATCTCATGGCCTCCTGGGGTCCCGGTGCGGGCGGC  
 CGTTCCTCGCCGGTCAACACCCTCACCCAGACCATGCACGACCTCGCCGGGCTCGGCAGCCGACGCCG  
 CTGACGCACCTATCCCTGTCTCGACGGGCATCCGAATCCTCCCTGTCGTCTGAATCCTCCGAATCTTCTG  
 ATGACGGTCTCTGCATGGATTCCCCAGCCCTATGGACCCACATGGCGGAGCAGACGTTTGAACAGGC  
 CATCCAGGCAGCCAGCCGGATCATTGAAACGAGCAGTTTGCATCAGACGCTTCCAGTCTATGCCGGTG  
 AGGCTGCTGGGCCACAGCCCGTCTCGGAACATCACCACTCCAGGCGCCGACGGCCGGAGGAAGA  
 GCGAGGCGGGCAGTGGAGCTGCCAGCAGCTCTGGGAAGACAAGGAGAATGATGGATTTGCTTCAAGAT  
 GCCATGGAAGCCACACATCCCAGCTCCACCCATGCTCTGGCAGAGTGGCCAGCCGAGGGAAGCCTTT  
 GCCCAGAGACCCAGCTCGCCCCCGACCTGATGTGTCTCAGTCCCTGACCGAAAGTGAAGTGGAGGAGC  
 TCAGCCCCCTGGCCCTAGGTCGTTCTCTGACCCCTGCAGAGGGGATACTGAGGAAGATGATGGATT  
 TGTGGACATCCTAGAGAGTGACTTAAAGGATGATGATGCAGTTCCCCAGGCATGGAGAGTCTCATTAGT  
 GCCCCACTGGTCAAGACCTTGGAAAAGGAAGAGGAAAAGGACCTCGTCATGTACAGCAAGTGCCAGCGGC  
 TCTTCCGCTCTCCGTCCATGCCCTGCAGCGTGATCCGGCCATCCTCAAGAGGCTGGAGCGGCCCCAGGA  
 CAGGGACACGCCCGTGCAGAATAAGCGGAGGCGGAGCGTGACCCCTCCTGAGGAGCAGCAGGAGGCTGAG  
 GAACTAAAGCCCGCGTCTCCGCTCAAATCACTGTGTACAGATGAGATCGAGAACCCTCTGGACAGTG  
 ACCACCGAGAGCTGATTGGAGATTACTTAAGGCCTTCTCCTACAGACAGTAGACGGAAAGCACCAAGA  
 CCTCAAGTACATCTACCAGAAACGATGGTGGCCCTATTGACGGCAAGTTCAGCAACATCGTGGATAAG  
 TTTGTGATTGTAGACTGCAGATACCCCTATGAATATGAAGGCGGGCACATCAAGACTGCGGTGAACCTTGC  
 CCCTGGAACGCGACGCCGAGAGCTTCTACTGAAGAGCCCATCGCGCCCTGTAGCCTGGACAAGAGAGT  
 CATCCTCATTTTCCACTGTGAATTCTCATCTGAGCGTGGGCCCGCATGTGCCGTTTTCATCAGGGAACGA  
 GACCGTGTGTCAACGACTACCCAGCCTCTACTACCCTGAGATGTATATCCTGAAAGCGGCTACAAGG  
 AGTTCTTCCCTCAGCACCCGAATTCTGTGAACCCAGGACTACCGCCCATGAACCACGAGGCCTTCAA  
 GGATGAGCTAAAGACCTCCGCCTCAAGACTCGCAGCTGGGCTGGGGAGCGGAGCCGGCGGGAGCTCTGT  
 AGCCGGCTGCAGGACCAG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG216838 representing NM\_004358  
 Red=Cloning site Green=Tags(s)

MEVPQPEPAPGSALSPAGVCGGAQRPGLPGLLLGSHGLL GSPVRAAASSPVTTLTQTMHDLAAGLSRSR  
 LTHLSLRRASESSLSESSSSDAGLCMDSPSPMDPHMAEQTFEQAIQAASRIIRNEQFAIRRFQSMFV  
 RLLGHSPVLRNITNSQAPDGRRKSEAGSGAASSSGEDKENDGFVFKMPWKPTHPSSTHALAEWASRREAF  
 AQRPSAPDLMCLSPDRKMEVEEL SPLALGRFSLTPAEGDTEEDDGFVDILESDLKDDDAVPPGMESLIS  
 APLVKLTLEKEEEKDLVMYSKQRLFRSPMPCSVIRPILKRLERPQDRDTPVQNKRRRSVTPPEEQEAE  
 EPKARVLRKSLCHDEIENLLDSDHRELIGDYSKAFLLQTVDGKHQDLKYISPETMVALLTGKFSNIVDK  
 FVIVDCRYPYEGGHIKTAVNPLERDAESFLLKSPIAPCSLDKRVILIFHCEPSSERGPMPRCFIRER  
 DRAVNDYPSLYPEMYILKGGYKEFFPQHNFCEPQDYRPMNHEAFKDELKTFRLKTRSWAGERSRREL  
 SRLQDQ

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

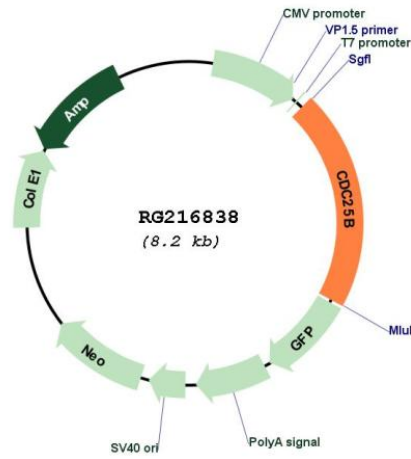
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:

NM\_004358

<b>ORF Size:</b>	1698 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	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>	<a href="#">NM_004358.4</a>
<b>RefSeq Size:</b>	3659 bp
<b>RefSeq ORF:</b>	1701 bp
<b>Locus ID:</b>	994
<b>UniProt ID:</b>	<a href="#">P30305</a>
<b>Cytogenetics:</b>	20p13
<b>Domains:</b>	RHOD
<b>Protein Families:</b>	Druggable Genome, Phosphatase
<b>Protein Pathways:</b>	Cell cycle, MAPK signaling pathway, Progesterone-mediated oocyte maturation
<b>Gene Summary:</b>	CDC25B is a member of the CDC25 family of phosphatases. CDC25B activates the cyclin dependent kinase CDC2 by removing two phosphate groups and it is required for entry into mitosis. CDC25B shuttles between the nucleus and the cytoplasm due to nuclear localization and nuclear export signals. The protein is nuclear in the M and G1 phases of the cell cycle and moves to the cytoplasm during S and G2. CDC25B has oncogenic properties, although its role in tumor formation has not been determined. Multiple transcript variants for this gene exist. [provided by RefSeq, Jul 2008]