

Product datasheet for **RG238677**

CDC25B (NM_001287516) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDC25B (NM_001287516) 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:

>RG238677 representing NM_001287516.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGCACAGCGAAACCCCAAGAGTCAGGTAGGGACCCTGCTCTCCGAGCCGACGCCCTGACGCAC
CTATCCCTGTCTCGACGGGCATCCGAATCCTCCTGCTCTGAATCCTCCGAATCTTGTATGCAGGT
CTCTGCATGGATTCCCCAGCCCTATGGACCCCCACATGGCGGAGCAGAGTTTGAACAGGCCATCCAG
GCAGCCAGCCGGATCATTGAAACGAGCAGTTTGCATCAGACGCTTCCAGTCTATGCCGTTGAGGCTG
CTGGGCCACAGCCCGTCTCGGAACATCACCACTCCAGGCGCCGACGCGCCGAGGAAGAGCGAG
GCGGGCAGTGGAGCTGCCAGCAGCTCTGGGAAGACAAGGAGAATGATGGATTTGCTTCAAGATGCCA
TGGAAAGCCACACATCCAGCTCCACCCATGCTCTGCCAGAGTGGCCAGCCGACGGGAAGCCTTTGCC
CAGAGACCCAGCTCGGCCCCGACCTGATGTGTCTCAGTCTGACCGAAGATGGAAGTGGAGGAGCTC
AGCCCCCTGGCCCTAGGTCGCTTCTCTGACCCCTGCAGAGGGGATACTGAGGAAGATGATGGATTT
GTGGACATCCTAGAGAGTGACTTAAAGGATGATGATGCAGTTCGCCAGGCATGGAGAGTCTCATTAGT
GCCCACTGGTCAAGACCTTGGAAAAGGAAGAGAAAAGGACCTCGTCATGTACAGCAAGTGCCAGCGG
CTCTCCGCTCTCCGTCCATGCCCTGCAGCGTGATCCGGCCCATCCTCAAGAGGCTGGAGCGGCCCCAG
GACAGGGACACGCCCGTGCAGAATAAGCGGAGGCGGAGCGTGACCCTCCTGAGGAGCAGCAGGAGGCT
GAGGAACCTAAAGCCCGCTCCTCCGCTCAAAATCACTGTGCACGATGAGATCGAGAACCTCCTGGAC
AGTGACCACCGAGAGCTGATTGGAGATTACTCTAAGGCCCTTCTCCTACAGACAGTAGACGGAAAGCAC
CAAGACCTCAAGTACATCTACCAGAAACGATGGTGGCCCTATTGACGGGCAAGTTCAGCAACATCGTG
GATAAGTTTGTGATTGTAGACTGCAGATACCCCTATGAATATGAAGGCGGGCACATCAAGACTGCGGTG
AACTTGGCCCTGGAACGCGACGCGGAGACTTCTACTGAAGAGCCCCATCGGCCCTGTAGCCTGGAC
AAGAGAGTCATCCTCATTTCCTACTGTGAATTCTCATCTGAGCGTGGGCCCGCATGTGCCGTTTATC
AGGGAACGAGACCGTGTGTCAACGACTACCCAGCCTCTACTACCCTGAGATGTATATCCTGAAAGGC
GGCTACAAGGAGTTCTTCCCTCAGCACCCGAACTTCTGTGAACCCAGGACTACCGGCCATGAACCAC
GAGGCCTCAAGGATGAGCTAAAGACCTTCCGCTCAAGACTCGCAGCTGGGCTGGGAGCGGAGCCGG
CGGGAGCTCTGTAGCCGGCTGCAGGACCAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
```

Protein Sequence:

>Peptide sequence encoded by RG238677
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MHSETPKSQVGTLLFRSRSLTHLSLRRASESSLSESSESSDAGLCMDSPSPMDPHMAEQTFEQAIQ
AASRIIRNEQFAIRRFQSMVRLLGHPVLRNITNSQAPDGRKSEAGSGAASSSGEDKENDGFVFKMP
WKPTHPSSTHALAEWASRREAFQRPSSAPDLMLCLSPDRKMEVEEL SPLALGRFSLTPAEGDTEEDDGF
VDILESCLKDDAVPPGME SLISAPLVKLEKEEEKDLVMYSKQRLFRSPMPCSVIRPILKRLERPQ
DRDTPVQNKRRRSVTPPEEQQEAEKARVLRSLCHDEIENLLSDHRELIGDYSKAFLLQTVDGKH
QDLKYISPETMVALLTGKFSNIVDKFVI VDCRYPYEYEGHIKTAVNPLERDAESFLLKSPIAPCSLD
KRVILIFHCEFSSERGPMPCRFIRERDRAVNDYPSLYPEMYILKGGYKEFFPQHPNFCPEQDYRPMNH
EAFKDELKTRFRKTRSWAGERSRRELCSRLQDQ
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGYTNRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHP SILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:

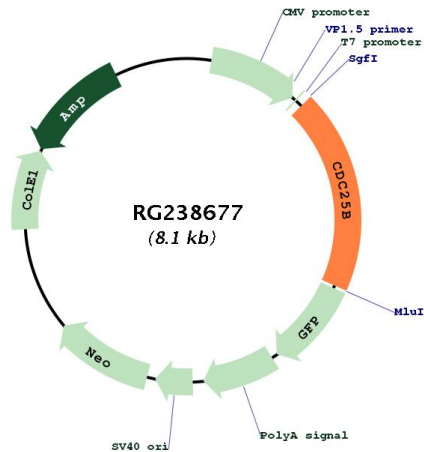


EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI
 CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

 HindIII NheI RsrII MluI NotI XhoI GFP Tag
 CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- ---
 T R T R P L E M E S D - - -

 PmeI FseI
 --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT
 - - E E R V Stop

Plasmid Map:



ACCN: NM_001287516

ORF Size: 1548 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).

RefSeq: [NM_001287516.1](#), [NP_001274445.1](#)

RefSeq Size:	3071 bp
RefSeq ORF:	1551 bp
Locus ID:	994
Cytogenetics:	20p13
Protein Families:	Druggable Genome, Phosphatase
Protein Pathways:	Cell cycle, MAPK signaling pathway, Progesterone-mediated oocyte maturation
MW:	59.3 kDa
Gene Summary:	<p>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]</p>