

## Product datasheet for **RC207409**

### **CDC25B (NM\_021873) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CDC25B (NM_021873) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CDC25B
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC207409 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGGTGCCCCAGCCGGAGCCCGCGCCAGGCTCGGCTCTCAGTCCAGCAGGCGTGTGCGGTGGCGCCC  
 AGCGTCCGGGCCACCTCCCGGGCTCCTGCTGGGATCTCATGGCCTCCTGGGGTCCCGGTGCGGGCGGC  
 CGTTCCTCGCCGGTCAACACCCTCACCCAGACCATGCACGACCTCGCCGGGCTCGGCAGCGAAACCCCA  
 AAGAGTCAGGTAGGGACCCTGCTCTTCCGAGCCGAGCCGCTGACGCACCTATCCCTGTCTCGACGGG  
 CATCCGAATCCTCCCTGCTGCTGAATCCTCCGAATCTTCTGATGCAGGTCTCTGCATGGATTCCCCCAG  
 CCCTATGGACCCACATGGCGGAGCAGACGTTTGAACAGGCCATCCAGGCAGCCAGCCGGATCATTGCA  
 AACGAGCAGTTTGCCATCAGACGCTTCCAGTCTATGCCGGTGGGCTGCTGGGCCACAGCCCGTGTCTC  
 GGAACATCACCACTCCAGGCGCCGACGGCCGAGGAAGAGCGAGGCGGGCAGTGGAGCTGCCAGCAG  
 CTCTGGGAAGACAAGGAGAATGATGGATTTGTCTTCAAGATGCCATGGAAGCCACACATCCAGCTCC  
 ACCCATGCTCTGGCAGAGTGGGCCAGCCGAGGAAGCCTTTGCCAGAGACCCAGCTCGGCCCCCGACC  
 TGATGTGTCTCAGTCTGACCGGAAGATGGAAGTGGAGGAGCTCAGCCCCCTGGCCCTAGGTCGTTCTC  
 TCTGACCCTGCAGAGGGGGATACTGAGGAAGATGATGGATTTGTGGACATCCTAGAGAGTGACTTAAAG  
 GATGATGATGCAGTTCCTCCAGGCATGGAGAGTCTCATTAGTGCCCACTGGTCAAGACCTTGGAAAAGG  
 AAGAGGAAAAGGACCTCGTCATGTACAGCAAGTCCAGCGGCTCTTCCGCTCTCCGTCCATGCCCTGCAG  
 CGTGATCCGGCCATCCTCAAGAGGCTGGAGCGGCCAGGACAGGGACACGCCGTGCAGAATAAGCGG  
 AGCGGGAGCGTGACCCCTCCTGAGGAGCAGCAGGAGGCTGAGGAACCTAAAGCCCGCTCCTCCGCTCAA  
 AATCACTGTGTACGATGAGATCGAAGACCTCCTGGACAGTACCACCGAGAGCTGATTGGAGATTACTC  
 TAAGGCCTTCTCCTACAGACAGTAGACGGAAGCACCAAGACCTCAAGTACATCTCACCAGAAACGATG  
 GTGCCCTATTGACGGGCAAGTTCAGCAACATCGTGGATAAGTTTGTGATTGTAGACTGCAGATACCCCT  
 ATGAATATGAAGGCGGGCACATCAAGACTGCGGTGAACCTGCCCCGGAACGCGACGCCGAGAGTTCCT  
 ACTGAAGAGCCCCATCGCGCCCTGTAGCCTGGACAAGAGAGTCACTCCTATTTTCCACTGTGAATTCTCA  
 TCTGAGCGTGGGCCCGCATGTGCCGTTTTCATCAGGGAACGAGACCGTGTCAACGACTACCCAGCC  
 TCTACTACCTGAGATGTATCCTGAAAGGCGGCTACAAGGAGTTCTTCCCTCAGCACCCGAACCTCTG  
 TGAACCCAGGACTACCGCCCATGAACCACGAGGCTTCAAGGATGAGCTAAAGACCTTCCGCTCAAG  
 ACTCGCAGCTGGGCTGGGAGCGGAGCCGCGGGAGCTCTGTAGCCGGCTGCAGGACCAG

**ACGCGT**ACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC207409 protein sequence  
 Red=Cloning site Green=Tags(s)

MEVPQPEPAPGSALSPAGVCGGAQRPGHLPGLLLGSHGLLGSPVRAAASSPVTTLTQTMHDLAGLGSETP  
 KSQVGTLLFRSRSLTHLSLRRASESSLSESSESSDAGLCMDSPSPMDPHMAEQTFEQAIQAASRIIR  
 NEQFAIRRFQSMQVRLRHSPVLRNITNSQAPDGRRKSEAGSGAASSSGEDKENDGFVFKMPWKPTHSS  
 THALAEWASRREAFQRPSSAPDLMCLSPDRKMEVEEL SPLALGRFSLTPAEGDTEEDDGFVDILESCLK  
 DDDAVPPGMESLISAPLVKLEKEEEKDLVMYSKCQRLFRSPSPMPCSVIRPILKRLERPQDRDTPVQNKR  
 RRSVTPPEEQEAEEPQARVLRSLCHDEIENLLDSDHRELIGDYSAFLLQTVDGKHQDLKYISPETM  
 VALLTGKFSNIVDKFVIIDCRYPYEYEGGHKTAVNPLERDAESFLLKSPIAPCSLDRVILIFHCEFS  
 SERGPRMCRFIRERDRAVNDYPSLYPEMYILKGGYKEFFQHPNFCEPQDYRPMNHEAFKDELKTRFKL  
 TRSWAGERSRRELCSRLQDQ

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6134\\_e02.zip](https://cdn.origene.com/chromatograms/mk6134_e02.zip)

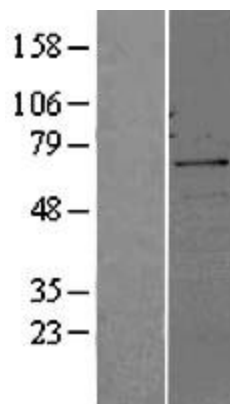
**Restriction Sites:**

Sgfl-Mlul

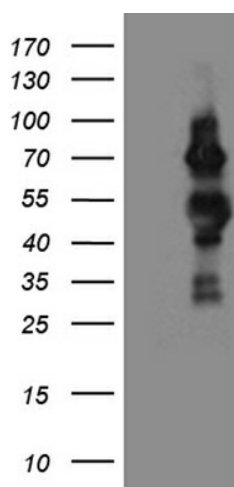


<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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_021873.3</a>
<b>RefSeq Size:</b>	3696 bp
<b>RefSeq ORF:</b>	1743 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>MW:</b>	65 kDa
<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]

## Product images:



Western blot validation of overexpression lysate (Cat# [LY402883]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207409 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CDC25B (Cat# RC207409, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDC25B (Cat# [TA812352])(1:2000).