

## Product datasheet for MR229049

### Ccnd3 (NM\_001081636) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ccnd3 (NM_001081636) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ccnd3
Synonyms:	9230106B05Rik; AA682053; AL024085; AW146355; C78795
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR229049 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCTGCTGTGTTGCGAGGGCACCCGGCACGCGCCCCGGGCCGGCCGACCCGCGGCTGCTTGGGG  
ACCAGCGTGTCTGCAGAGTTTACTCCGCTGGAGGAGCGCTACGTGCCGCGAGCCTCTACTTCCAGTG  
CGTGCAAAGGAGATCAAGCCGCACATGCGGAAGATGCTGGCATACTGGATGCTGGAGGTGTGTAGGAG  
CAGCGCTGCGAGGAGGATGTCTTCCCTCTGGCTATGAACCTGGATCGCTACCTGTCTGCGTCCCCA  
CCCGAAAGGCGCAATTGCAGTTCTAGGTACCGTCTGCCTGTTGCTGGCCTCCAAGCTGCGCGAAACCAC  
GCCCTGACTATTGAGAAGCTTTGCATCTATACGACCAGGCTGTGGCTCCATGGCAGTTGCGGGAGTGG  
GAGGTGCTGGTCTGGGGAAGCTCAAGTGGGACCTGGCTGCCGTGATTGCGCACGACTTCTGGCCTTGA  
TTCTGCACCGCTGTCTCTGCCAGTGACCGGCAGGCTTTGGTCAAAAAGCATGCCAGACCTTTTTGGC  
CCTCTGTGCTACAGATTACACCTTTGCGATGTATCCTCCATCCATGATCGCCACAGGCAGCATTGGGGCA  
GCCGTGCTAGGCCTAGGCGCCTGCTCTATGTCTGCGGATGAGCTCACAGAGTTGCTGGCCGGGATCACAG  
GCACTGAAGTGGACTGCCTGCGAGCCTGCCAGGAACAGATCGAAGCTGCCCTCAGGGAGAGCCTCAGGGA  
AGCTGCTCAGACAGCCCCAGCCAGTCCCAAAGCCCCCGGGGCTCTAGCAGCCAGGGGCCAGTCAG  
ACCAGCACTCCACAGATGTCACAGCCATTCACCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR229049 protein sequence  
Red=Cloning site Green=Tags(s)

MELLCCEGTRHAPRAGDPDLLGDQRVLQSLRLLEERYVPRASYFQCQVQKEIKPHMRKMLAYWMLEVCEE  
 QRCEEDVFPLAMNYLDRYLSCVPTRKAQLQLLGTVCLLLASKLRETTPLTIEKLCIYTDQAVAPWQLREW  
 EVLVLGKLGKLDLAAVIAHDFLALILHRLSLPSDRQALVKKHAQTFALCATDYTFAMYPSPMIATGSIGA  
 AVLGLGACSMSADEL TELLAGITGTEVDCLRACQEIEAALRESLREAAQTAPSPVPKAPRGSSSQGPSQ  
 TSTPTDVTAIHL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001081636

**ORF Size:** 876 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\\_001081636.1](#), [NP\\_001075105.1](#)

**RefSeq Size:** 2131 bp

**RefSeq ORF:** 879 bp

**Locus ID:** 12445

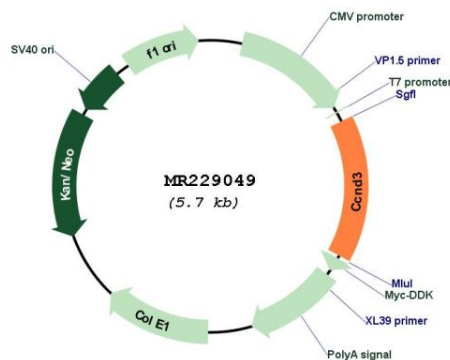
**UniProt ID:** [P30282](#)

**Cytogenetics:** 17 23.37 cM

**MW:** 32.4 kDa

**Gene Summary:** Regulatory component of the cyclin D3-CDK4 (DC) complex that phosphorylates and inhibits members of the retinoblastoma (RB) protein family including RB1 and regulates the cell-cycle during G(1)/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complex and the subsequent transcription of E2F target genes which are responsible for the progression through the G(1) phase. Hypophosphorylates RB1 in early G(1) phase. Cyclin D-CDK4 complexes are major integrators of various mitogenic and antimitogenic signals. Also substrate for SMAD3, phosphorylating SMAD3 in a cell-cycle-dependent manner and repressing its transcriptional activity. Component of the ternary complex, cyclin D3/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex.[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR229049