

Product datasheet for **MR226906**

Ccnd1 (NM_007631) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ccnd1 (NM_007631) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Ccnd1
Synonyms: AI327039; bcl-1; cD1; CycD1; Cyl-1; PRAD1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR226906 representing NM_007631
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAACACCAGCTCCTGTGCTGCGAAGTGGAGACCATCCGCCGCGGTACCCTGACACCAATCTCCTCA
 ACGACCGGTGCTGCGAGCCATGCTCAAGACGGAGGAGACCTGTGCGCCCTCCGTATCTTACTTCAAGTG
 CGTGCAGAAGGAGATTGTCCATCCATGCGAAAATCGTGGCCACCTGGATGCTGGAGGTCTGTGAGGAG
 CAGAAGTGCAGAGGAGGTCTCCCGCTGGCCATGAACCTGACCTGGACCGCTTCTGTCCCTGGAGCCCT
 TGAAGAAGAGCCGCTGCAGCTGTGGGGCCACCTGCATGTTCTGTGGCCTCTAAGATGAAGGAGACCAT
 TCCTTACTGCTGCCGAGAAGTTGTGATCTACACTGACAACCTATCCGGCCCGAGGAGCTGTGCAATG
 GAACTGCTTCTGGTGAACAAGCTCAAGTGAACCTGGCCGCCATGACTCCCCACGATTTTCATCGAACCT
 TCCTCTCCAAAATGCCAGAGCGGATGAGAACAAGCAGACCATCCGCAAGCATGCACAGACCTTTGTGGC
 CCTCTGTGCCACAGATGTGAAGTTCATTTCCAACCCACCCTCCATGGTAGCTGCTGGGAGCGTGGTGGCT
 GCGATGCAAGGCCTGAACCTGGGCAGCCCAACAACCTTCTCTCTGCTACCGCACAAACGCACTTTCTTT
 CCAGAGTCATCAAGTGTGACCCGACTGCCTCCGTGCCTGCCAGGAACAGATTGAAGCCCTTCTGGAGTC
 AAGCCTGCGCCAGGCCAGCAGAACGTGACCCCAAGGCCACTGAGGAGGAGGGGAAGTGGAGGAAGAG
 GCTGGTCTGGCCTGCACGCCACCGACGTGCGAGATGTGGACATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR226906 representing NM_007631
Red=Cloning site Green=Tags(s)

MEHQLLCCEVETIRRAYPDTNLLNDRVLRAMLKTEETCAPSVSYFKCVQKEIVPSMRKIVATWMLEVCEE
 QKCEEEVFPLAMNYLDRFLSLEPLKKSRLQLLGATCMFVASKMKETIPLTAEKLCIYTDNSIRPEELLQM
 ELLL VNKLKWNLAAAMTPHDFIEHFLSKMPEADENKQTIKHAQTFVALCATDVKFI SNPPSMVAAGSVVA
 AMQGLNLGSPNNFLSCYRTHFLSRVIKCDPDCLRACQEIEALLESSLRQAQNVDPKATEEEGEVEEEE
 AGLACTPTDVRDVIDI

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_007631

ORF Size: 885 bp

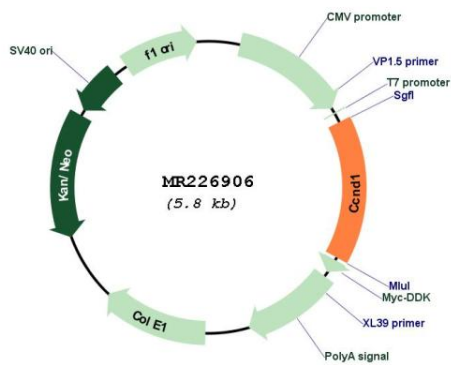
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:	<ol style="list-style-type: none">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:	<u>NM_007631.3</u>
RefSeq Size:	3796 bp
RefSeq ORF:	888 bp
Locus ID:	12443
UniProt ID:	<u>P25322</u>
Cytogenetics:	7 88.92 cM
MW:	33.9 kDa
Gene Summary:	Regulatory component of the cyclin D1-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 D1/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex. Exhibits transcriptional corepressor activity with INSM1 on the NEUROD1 and INS promoters in a cell cycle-independent manner (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR226906