

Product datasheet for **RG210316**

Cyclin D2 (CCND2) (NM_001759) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cyclin D2 (CCND2) (NM_001759) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cyclin D2
Synonyms:	KIAK0002; MPPH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210316 representing NM_001759 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCTGCTGTGCCACGAGGTGGACCCGGTCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACG
ACCGCGTCTGCAGAACCTGCTCACCATCGAGGAGCGCTACCTCCGCAGTGCTCCTACTCAAGTGCCT
GCAGAAGGACATCCAACCCTACATGCGCAGAATGGTGCCACCTGGATGCTGGAGGTCTGTGAGGAACAG
AAGTGCGAAGAAGAGGTCTCCCTCTGGCCATGAATTACCTGGACCGTTTCTGGCTGGGTCCCGACTC
CGAAGTCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTGGCCTCCAAACTCAAAGAGACCAGCCC
GCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGCTGCTGGAGTGGAA
CTGGTGGTGTGGGAAGTTGAAGTGAACCTGGCAGCTGCACTCCTCATGACTTCATTGAGCAGCATCT
TGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTGCTCT
GTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCC
ATCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGTCACTTGTGATGCCCTGACTGAGCTGCTGGCTA
AGATCACCAACACAGACGTGGATTGTCTCAAAGCTTCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAG
CCTGCAGCAGTACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACC
CCTACAGACGTGCGGGATATCGACCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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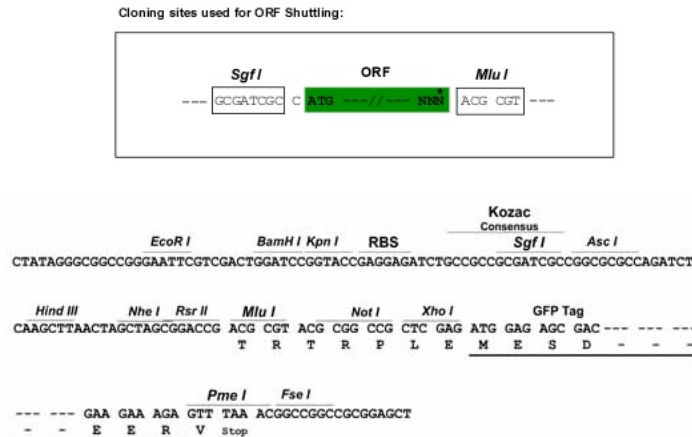
Protein Sequence: >RG210316 representing NM_001759
 Red=Cloning site Green=Tags(s)

MELLCHEVDPVRRRAVRDRNLLRDDRVLQNLLETIERYLPQCSYFKCVQKDIQPYMRMRMVAWMLVCEEQ
 KCEEEVFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWE
 LVVLGKLGKWNLA AVTPHDFIEHILRKLPPQREKLSLIRKHAQTFIALCATDFKFA MYPPSMIATGSVGA
 ICGLQQDEEVSSLTCDALTELLAKITNTD V DCLKACQEQIEAVLLNSLQQYRQDQRD GSKSEDEL DQAST
 PTDVVRDIDL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001759

ORF Size: 867 bp

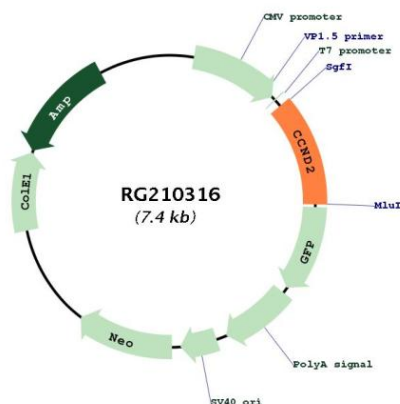
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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:	NM_001759.4
RefSeq Size:	6480 bp
RefSeq ORF:	870 bp
Locus ID:	894
UniProt ID:	P30279
Cytogenetics:	12p13.32
Domains:	cyclin_C, CYCLIN, cyclin
Protein Families:	Druggable Genome
Protein Pathways:	Cell cycle, Focal adhesion, Jak-STAT signaling pathway, p53 signaling pathway, Wnt signaling pathway
Gene Summary:	The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with CDK4 or CDK6 and functions as a regulatory subunit of the complex, whose activity is required for cell cycle G1/S transition. This protein has been shown to interact with and be involved in the phosphorylation of tumor suppressor protein Rb. Knockout studies of the homologous gene in mouse suggest the essential roles of this gene in ovarian granulosa and germ cell proliferation. High level expression of this gene was observed in ovarian and testicular tumors. Mutations in this gene are associated with megalencephaly-polymicrogyria-polydactyly-hydrocephalus syndrome 3 (MPPH3). [provided by RefSeq, Sep 2014]

Product images:



Circular map for RG210316