

# **Product datasheet for RC235572**

# OriGene Technologies, Inc.

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### Cyclin D3 (CCND3) (NM\_001287434) Human Tagged ORF Clone

#### **Product data:**

**Product Type: Expression Plasmids** 

**Product Name:** Cyclin D3 (CCND3) (NM\_001287434) Human Tagged ORF Clone

Tag: Myc-DDK Symbol: CCND3

Vector: pCMV6-Entry (PS100001) E. coli Selection: Kanamycin (25 ug/mL)

Cell Selection: Neomycin

>RC235572 representing NM\_001287434 **ORF Nucleotide** Red=Cloning site Blue=ORF Green=Tags(s) Sequence:

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGTACCCGCCATCCATGATCGCCACGGGCAGCATTGGGGCTGCAGTGCAAGGCCTGGGTGCCTGCTCCA TCAGGAGCAGATCGAAGCTGCACTCAGGGAGAGCCTCAGGGAAGCCTCTCAGACCAGCTCCAGCCCAGCG **TACACCTG** 

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

>RC235572 representing NM\_001287434 **Protein Sequence:** 

Red=Cloning site Green=Tags(s)

MYPPSMIATGSIGAAVOGLGACSMSGDELTELLAGITGTEVDCLRACQEQIEAALRESLREASQTSSSPA

PKAPRGSSSQGPSQTSTPTDVTAIHL

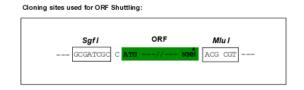
**TRTRPL**EQKLISEEDLAANDILDYKDDDDK**V** 

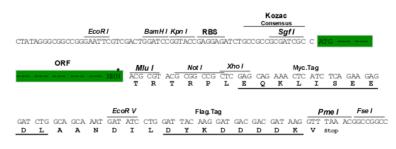
**Restriction Sites:** Sgfl-Mlul





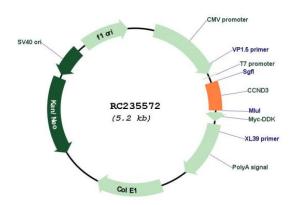
### **Cloning Scheme:**





<sup>\*</sup> The last codon before the Stop codon of the ORF

### Plasmid Map:



**ACCN:** NM\_001287434

ORF Size: 288 bp



#### Cyclin D3 (CCND3) (NM\_001287434) Human Tagged ORF Clone - RC235572

**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 001287434.1, NP 001274363.1

RefSeq Size: 2065 bp
RefSeq ORF: 291 bp
Locus ID: 896

UniProt ID: P30281

Cytogenetics: 6p21.1

**Protein Families:** Druggable Genome

**Protein Pathways:** Cell cycle, Focal adhesion, Jak-STAT signaling pathway, p53 signaling pathway, Wnt signaling

pathway

**MW:** 10.2 kDa

**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 and functions as a regulatory subunit of CDK4 or CDK6, 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. The

CDK4 activity associated with this cyclin was reported to be necessary for cell cycle progression through G2 phase into mitosis after UV radiation. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2008]