

# Cyclin D1

Rabbit Monoclonal antibody(Mab)
Catalog # AD80273

#### **Product Information**

Application IHC-P
Primary Accession P24385
Reactivity Human
Host Rabbit
Clonality Monoclonal
Clone Names 332G4S4
Calculated MW 33729

#### **Additional Information**

**Gene ID** 595 **Gene Name** CCND1

Other Names G1/S-specific cyclin-D1, B-cell lymphoma 1 protein, BCL-1, BCL-1 oncogene,

PRAD1 oncogene, CCND1 {ECO:0000303 | PubMed:8204893,

ECO:0000312 | HGNC:HGNC:1582}

**Dilution** IHC-P~~Ready-to-use

**Storage** Maintain refrigerated at 2-8°C.

**Precautions** Cyclin D1 Antibody is for research use only and not for use in diagnostic or

therapeutic procedures.

### **Protein Information**

Name CCND1 {ECO:0000303|PubMed:8204893, ECO:0000312|HGNC:HGNC:1582}

**Function** 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 (PubMed:1827756, PubMed:1833066, PubMed:19412162, PubMed:33854235,

PubMed:8114739, PubMed:8302605). 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 (PubMed:1827756, PubMed:1833066,

PubMed:<u>19412162</u>, PubMed:<u>8114739</u>, PubMed:<u>8302605</u>).

Hypophosphorylates RB1 in early G(1) phase (PubMed:1827756,

PubMed:<u>1833066</u>, PubMed:<u>19412162</u>, PubMed:<u>8114739</u>, PubMed:<u>8302605</u>). Cyclin D-CDK4 complexes are major integrators of various mitogenenic and

antimitogenic signals (PubMed: 1827756, PubMed: 1833066,

PubMed: 19412162, PubMed: 8302605). Also a substrate for SMAD3,

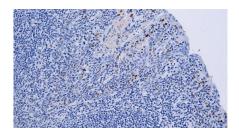
phosphorylating SMAD3 in a cell-cycle-dependent manner and repressing its

transcriptional activity (PubMed:<u>15241418</u>). Component of the ternary complex, cyclin D1/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex (PubMed:<u>9106657</u>). Exhibits transcriptional corepressor activity with INSM1 on the NEUROD1 and INS promoters in a cell cycle-independent manner (PubMed:<u>16569215</u>, PubMed:<u>18417529</u>).

**Cellular Location** 

Nucleus. Cytoplasm. Nucleus membrane. Note=Cyclin D-CDK4 complexes accumulate at the nuclear membrane and are then translocated to the nucleus through interaction with KIP/CIP family members

## **Images**



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