

**cyclin D1 Antibody (internal region)**  
Peptide-affinity purified goat antibody  
Catalog # AF4062a

## Specification

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### cyclin D1 Antibody (internal region) - Product Information

|                   |   |
|-------------------|---|
| Application       | WB  |
| Primary Accession | <a href="#">P24385</a>                            |
| Other Accession   | <a href="#">NP_444284.1</a> , <a href="#">595</a> |
| Reactivity        | Human   |
| Host              | Goat  |
| Clonality         | Polyclonal  |
| Concentration     | 0.5 mg/ml   |
| Isotype           | IgG   |
| Calculated MW     | 33729   |

### cyclin D1 Antibody (internal region) - Additional Information

Gene ID 595

#### Other Names

G1/S-specific cyclin-D1, B-cell lymphoma 1 protein, BCL-1, BCL-1 oncogene, PRAD1 oncogene, CCND1, BCL1, PRAD1

#### Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

cyclin D1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

### cyclin D1 Antibody (internal region) - 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](http://www.uniprot.org/citations/1827756), PubMed: [1833066](http://www.uniprot.org/citations/1833066), PubMed: [19412162](http://www.uniprot.org/citations/19412162), PubMed: [33854235](http://www.uniprot.org/citations/33854235), PubMed: [8114739](http://www.uniprot.org/citations/8114739))

target="\_blank">8114739</a>, PubMed:<a href="http://www.uniprot.org/citations/8302605" target="\_blank">8302605</a>). 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:<a href="http://www.uniprot.org/citations/1827756" target="\_blank">1827756</a>, PubMed:<a href="http://www.uniprot.org/citations/1833066" target="\_blank">1833066</a>, PubMed:<a href="http://www.uniprot.org/citations/19412162" target="\_blank">19412162</a>, PubMed:<a href="http://www.uniprot.org/citations/8114739" target="\_blank">8114739</a>, PubMed:<a href="http://www.uniprot.org/citations/8302605" target="\_blank">8302605</a>). Hypophosphorylates RB1 in early G(1) phase (PubMed:<a href="http://www.uniprot.org/citations/1827756" target="\_blank">1827756</a>, PubMed:<a href="http://www.uniprot.org/citations/1833066" target="\_blank">1833066</a>, PubMed:<a href="http://www.uniprot.org/citations/19412162" target="\_blank">19412162</a>, PubMed:<a href="http://www.uniprot.org/citations/8114739" target="\_blank">8114739</a>, PubMed:<a href="http://www.uniprot.org/citations/8302605" target="\_blank">8302605</a>). Cyclin D-CDK4 complexes are major integrators of various mitogenic and antimitogenic signals (PubMed:<a href="http://www.uniprot.org/citations/1827756" target="\_blank">1827756</a>, PubMed:<a href="http://www.uniprot.org/citations/1833066" target="\_blank">1833066</a>, PubMed:<a href="http://www.uniprot.org/citations/19412162" target="\_blank">19412162</a>, PubMed:<a href="http://www.uniprot.org/citations/8302605" target="\_blank">8302605</a>). Also a substrate for SMAD3, phosphorylating SMAD3 in a cell-cycle-dependent manner and repressing its transcriptional activity (PubMed:<a href="http://www.uniprot.org/citations/15241418" target="\_blank">15241418</a>). Component of the ternary complex, cyclin D1/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex (PubMed:<a href="http://www.uniprot.org/citations/9106657" target="\_blank">9106657</a>). Exhibits transcriptional corepressor activity with INSM1 on the NEUROD1 and INS promoters in a cell cycle-independent manner (PubMed:<a href="http://www.uniprot.org/citations/16569215" target="\_blank">16569215</a>, PubMed:<a href="http://www.uniprot.org/citations/18417529" target="\_blank">18417529</a>).

#### 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

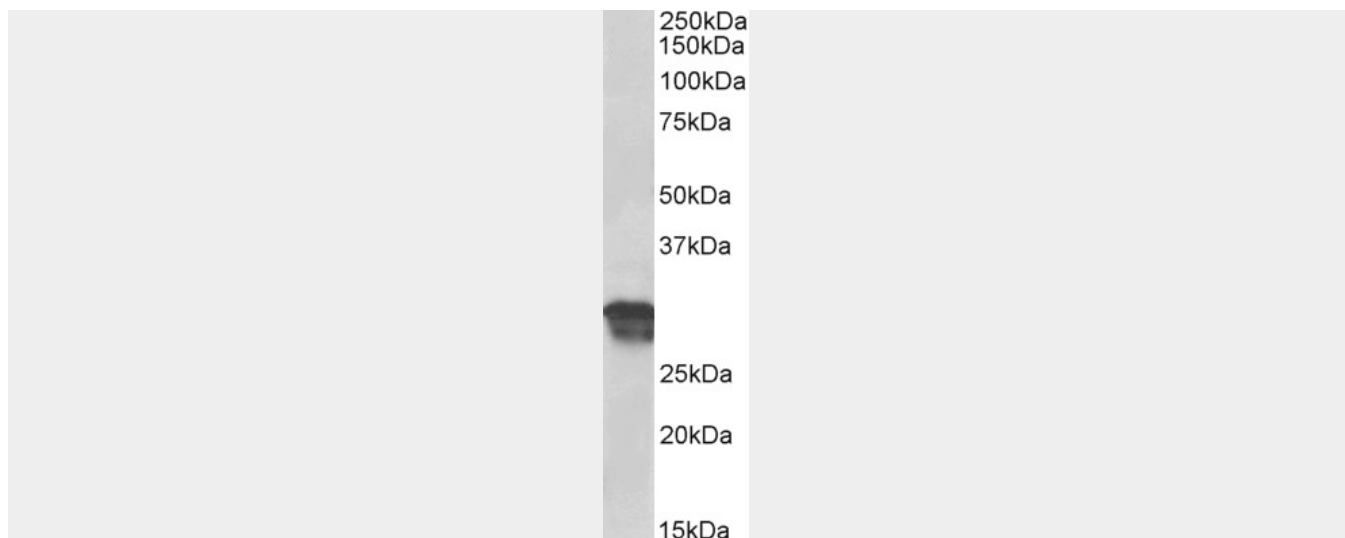
#### cyclin D1 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### cyclin D1 Antibody (internal region) - Images





AF4062a (0.5  $\mu\text{g/ml}$ ) staining of Human Placenta lysate (35  $\mu\text{g}$  protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### **cyclin D1 Antibody (internal region) - References**

A cyclin-D1 interaction with BAX underlies its oncogenic role and potential as a therapeutic target in mantle cell lymphoma. Beltran E, Fresquet V, Martinez-Useros J, Richter-Larrea JA, Sagardoy A, Sesma I, Almada LL, Montes-Moreno S, Siebert R, Gesk S, Calasanz MJ, Malumbres R, Rieger M, Prosper F, Lossos IS, Piris MA, Fernandez-Zapico ME, Martinez-Climent JA. *Proceedings of the National Academy of Sciences of the United States of America* 2011 Jul 108 (30): 12461-6. PMID: 21746927