10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# cyclin D1 Antibody (internal region)

**Peptide-affinity purified goat antibody**

**Catalog # AF4062a**

## Specification

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

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P24385 |
| Other Accession | NP_444284.1, 595 |
| 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:<a href="http://www.uniprot.org/citations/1833066" target="_blank">1833066</a>, PubMed:<a href="http://www.uniprot.org/citations/1827756" target="_blank">1827756</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>, PubMed:<a href="http://www.uniprot.org/citations/19412162"

target="_blank">19412162</a>, PubMed:<a href="http://www.uniprot.org/citations/33854235" target="_blank">33854235</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/1833066" target="_blank">1833066</a>, PubMed:<a href="http://www.uniprot.org/citations/1827756" target="_blank">1827756</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>, PubMed:<a href="http://www.uniprot.org/citations/19412162" target="_blank">19412162</a>). Hypophosphorylates RB1 in early G(1) phase (PubMed:<a href="http://www.uniprot.org/citations/1833066" target="_blank">1833066</a>, PubMed:<a href="http://www.uniprot.org/citations/1827756" target="_blank">1827756</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>, PubMed:<a href="http://www.uniprot.org/citations/19412162" target="_blank">19412162</a>). Cyclin D-CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals (PubMed:<a href="http://www.uniprot.org/citations/1833066" target="_blank">1833066</a>, PubMed:<a href="http://www.uniprot.org/citations/1827756" target="_blank">1827756</a>, PubMed:<a href="http://www.uniprot.org/citations/8302605" target="_blank">8302605</a>, PubMed:<a href="http://www.uniprot.org/citations/19412162" target="_blank">19412162</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

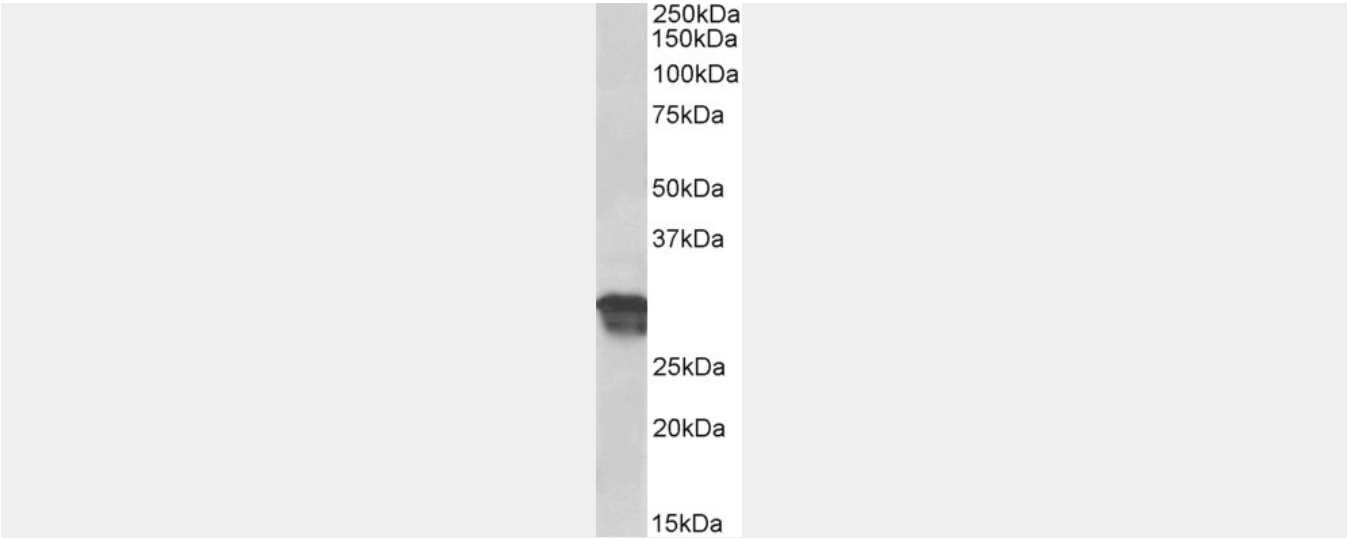
## cyclin D1 Antibody (internal region) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## cyclin D1 Antibody (internal region) - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999




AF4062a (0.5 µg/ml) staining of Human Placenta lysate (35 µg 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