

**Anti-Cyclin D1 CCND1 Rabbit Monoclonal Antibody**  
Catalog # ABO13966

**Specification**

**Anti-Cyclin D1 CCND1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC, IP
Primary Accession	<a href="#">P24385</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-Cyclin D1 CCND1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

**Anti-Cyclin D1 CCND1 Rabbit Monoclonal Antibody - 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 {ECO:0000303|PubMed:8204893, ECO:0000312|HGNC:HGNC:1582}

**Calculated MW**

33729 MW KDa

**Application Details**

WB 1:1000-1:5000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:100<br>IP 1:50

**Subcellular Localization**

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

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human Cyclin D1

**Purification**

Affinity-chromatography

**Storage**

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

## Anti-Cyclin D1 CCND1 Rabbit Monoclonal Antibody - 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/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/33854235" target="\_blank">33854235</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>). 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

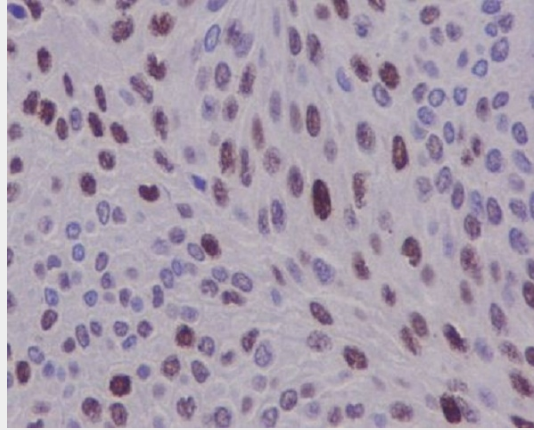
## Anti-Cyclin D1 CCND1 Rabbit Monoclonal Antibody - Protocols

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

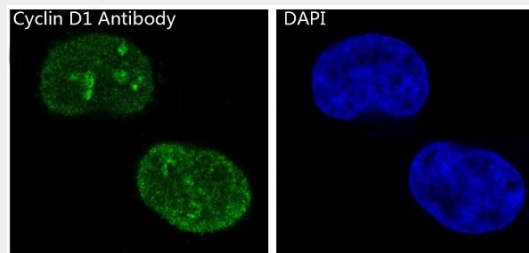
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-Cyclin D1 CCND1 Rabbit Monoclonal Antibody - Images**



Immunohistochemical analysis of paraffin-embedded human bladder, using Cyclin D1 Antibody.



Immunofluorescent analysis of MCF-7 cells, using Cyclin D1 Antibody.

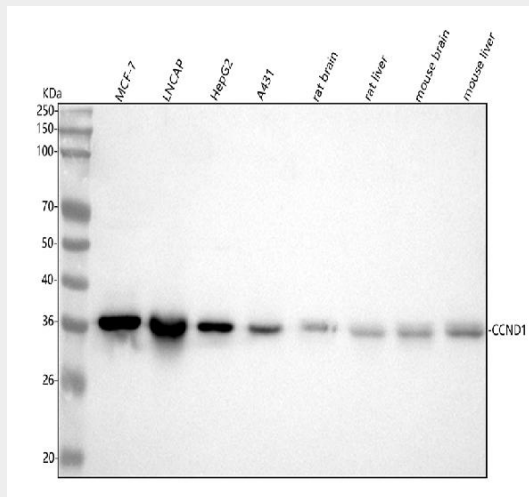
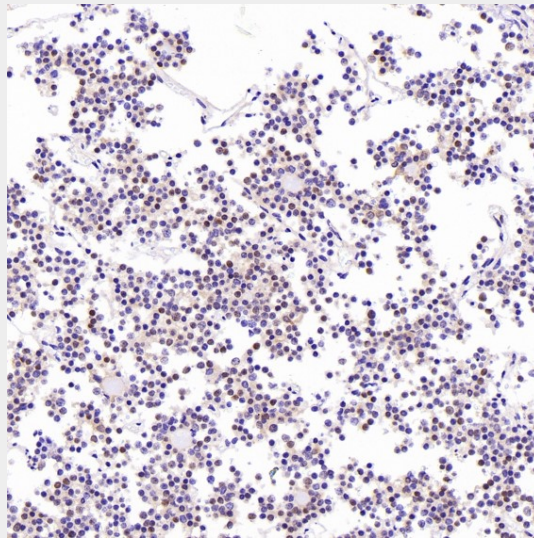


Figure 1. Western blot analysis of Cyclin D1 using anti-Cyclin D1 antibody (M00149-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

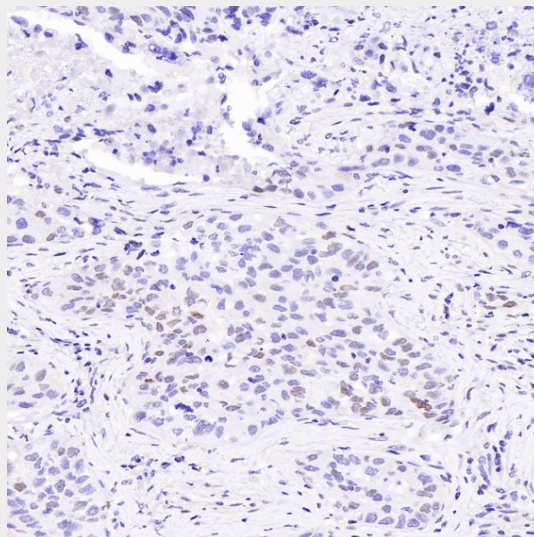
Lane 1: human MCF-7 whole cell lysates,  
 Lane 2: human LNCAP whole cell lysates,  
 Lane 3: human HepG2 whole cell lysates,

Lane 4: human A431 whole cell lysates,  
Lane 5: rat brain tissue lysates,  
Lane 6: rat liver tissue lysates,  
Lane 7: mouse brain tissue lysates,  
Lane 8: mouse liver tissue lysates.

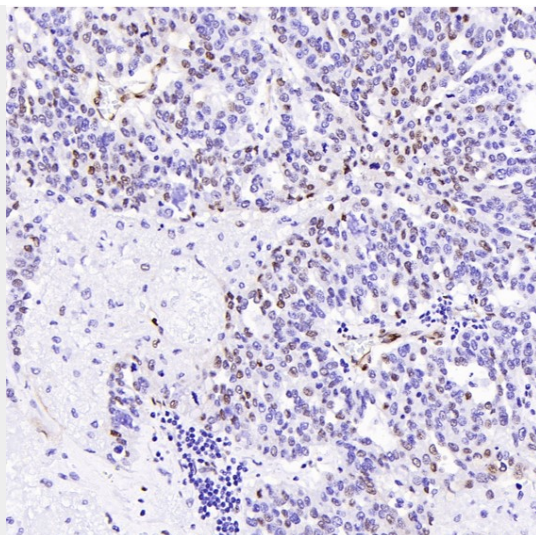
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Cyclin D1 antigen affinity purified monoclonal antibody (Catalog # M00149-1) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:1000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Cyclin D1 at approximately 34 kDa. The expected band size for Cyclin D1 is at 34 kDa.



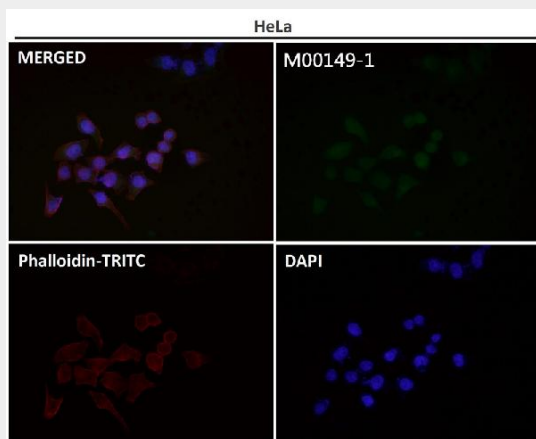
Immunohistochemical analysis of paraffin-embedded Human pituitary tumor, using the Antibody at 1:100 dilution.



Immunohistochemical analysis of paraffin-embedded Human squamous cell carcinoma , using the Antibody at 1:100 dilution.



Immunohistochemical analysis of paraffin-embedded Human ovarian cancer, using the Antibody at 1:500 dilution.



Immunofluorescent analysis using the Antibody at 1:50 dilution.