

Anti-Cyclin D1 antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50933**Specification****Anti-Cyclin D1 antibody - Product Information**

Application	WB, IHC-P, FC
Primary Accession	P24385
Reactivity	Human, Mouse, Rat, Dog
Host	Rabbit
Clonality	polyclonal
Calculated MW	H=34; KDa

Anti-Cyclin D1 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, BCL1, PRAD1

Dilution

WB~~1:100~1:500<br \>IHC-P~~1:100~1:500<br \>FC~~1:20~1:100

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Anti-Cyclin D1 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: [1833066](http://www.uniprot.org/citations/1833066), PubMed: [1827756](http://www.uniprot.org/citations/1827756), PubMed: [8114739](http://www.uniprot.org/citations/8114739), PubMed: [8302605](http://www.uniprot.org/citations/8302605), PubMed: [19412162](http://www.uniprot.org/citations/19412162), PubMed: [33854235](http://www.uniprot.org/citations/33854235)). 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:1833066, PubMed:1827756, PubMed:8114739, PubMed:8302605, PubMed:19412162). Hypophosphorylates RB1 in early G(1) phase (PubMed:1833066, PubMed:1827756, PubMed:8114739, PubMed:8302605, PubMed:19412162). Cyclin D-CDK4 complexes are major integrators of various mitogenic and antimitogenic signals (PubMed:1833066, PubMed:1827756, PubMed:8302605, PubMed:19412162). Also a substrate for SMAD3, phosphorylating SMAD3 in a cell-cycle-dependent manner and repressing its transcriptional activity (PubMed:15241418). Component of the ternary complex, cyclin D1/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex (PubMed:9106657). Exhibits transcriptional corepressor activity with INSM1 on the NEUROD1 and INS promoters in a cell cycle-independent manner (PubMed:16569215, PubMed:18417529).

Cellular Location

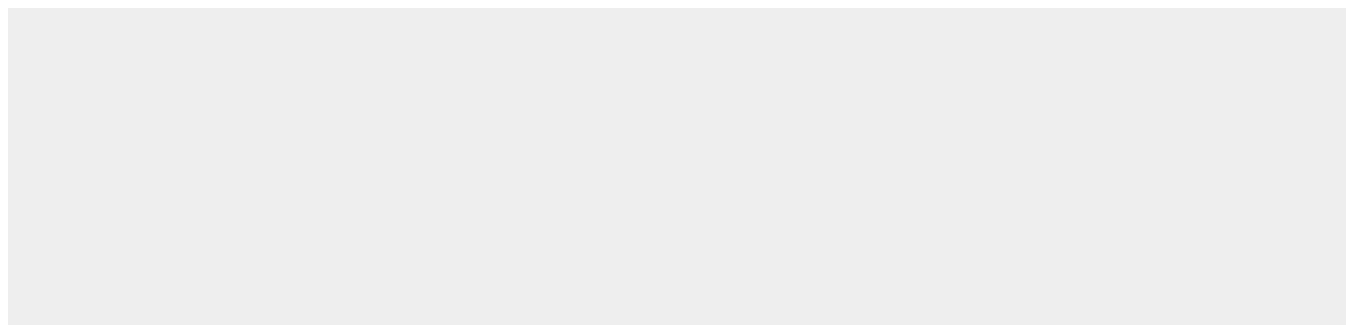
Nucleus. Cytoplasm Nucleus membrane. Note=Cyclin D-CDK4 complexes accumulate at the nuclear membrane and are then translocated to the nucleus through interaction with KIP/CIP family members

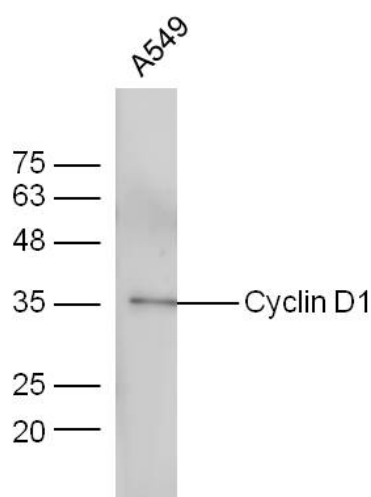
Anti-Cyclin D1 antibody - Protocols

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

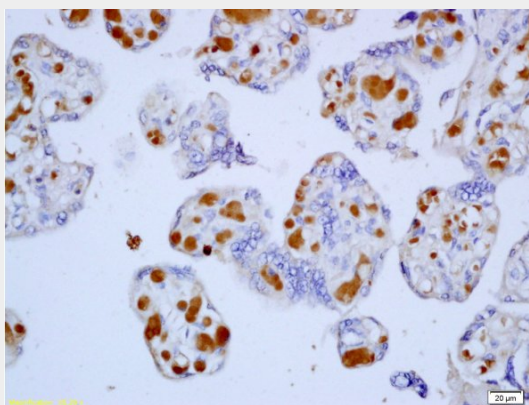
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Cyclin D1 antibody - Images

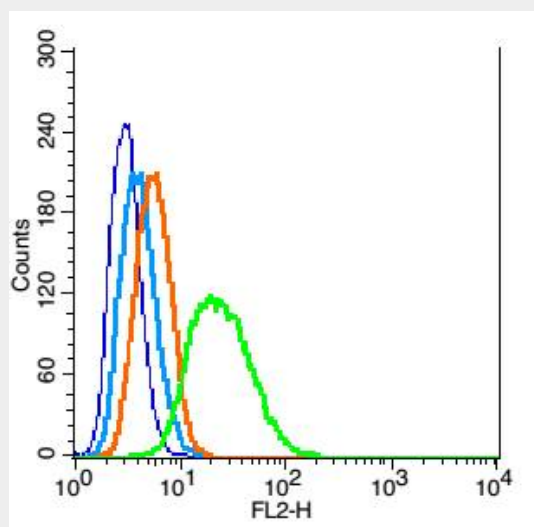




A549 cells probed with Anti-Cyclin D1 Polyclonal Antibody AP50933 at 1:300 overnight in 4°C. Followed by conjugation to the secondary antibody at 1:5000 90min in 37°C.



Formalin-fixed and paraffin embedded human placenta tissue labeled with Anti-Cyclin D1 Polyclonal Antibody, Unconjugated (AP50933) at 1:200, followed by conjugation to the secondary antibody and DAB staining



RSC96 cells probed with Cyclin D1 Polyclonal Antibody, Unconjugated AP50933 at 1:100 for 30 minutes followed by incubation with a conjugated secondary (PE Conjugated) (green) for 30 minutes compared to control cells (blue), secondary only (light blue) and isotype control (orange).

Anti-Cyclin D1 antibody - Background

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. 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. Hypophosphorylates RB1 in early G(1) phase. Cyclin D-CDK4 complexes are major integrators of various mitogenic and antimitogenic signals. Also substrate for SMAD3, phosphorylating SMAD3 in a cell-cycle-dependent manner and repressing its transcriptional activity. Component of the ternary complex, cyclin D1/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex. Exhibits transcriptional corepressor activity with INSM1 on the NEUROD1 and INS promoters in a cell cycle-independent manner.

Anti-Cyclin D1 antibody - References

Motokura T., et al. Nature 350:512-515(1991).
Lew D.J., et al. Cell 66:1197-1206(1991).
Xiong Y., et al. Cell 65:691-699(1991).
Withers D.A., et al. Mol. Cell. Biol. 11:4846-4853(1991).
Rimokh R., et al. Blood 83:3689-3696(1994).

Anti-Cyclin D1 antibody - Citations

- [Elucidating the role of the FoxO3a transcription factor in the IGF-1-induced migration and invasion of uveal melanoma cancer cells.](#)