

KD-Validated Anti-Cyclin D1 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI2370**Specification****KD-Validated Anti-Cyclin D1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P24385
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 34 kDa ; Observed, 34 kDa KDa
Gene Name	CCND1
Aliases	CCND1; Cyclin D1; U21B31; PRAD1; BCL1; B-Cell Lymphoma 1 Protein; G1/S-Specific Cyclin-D1; B-Cell CLL/Lymphoma 1; BCL-1 Oncogene; PRAD1 Oncogene; D11S287E; Cyclin D1 (PRAD1: Parathyroid Adenomatosis 1); Parathyroid Adenomatosis 1; G1/S-Specific Cyclin D1; BCL-1
Immunogen	A synthesized peptide derived from human Cyclin D1

KD-Validated Anti-Cyclin D1 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}

KD-Validated Anti-Cyclin D1 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: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:19412162, PubMed:33854235, PubMed:8114739, PubMed:8302605).

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

Cellular Location

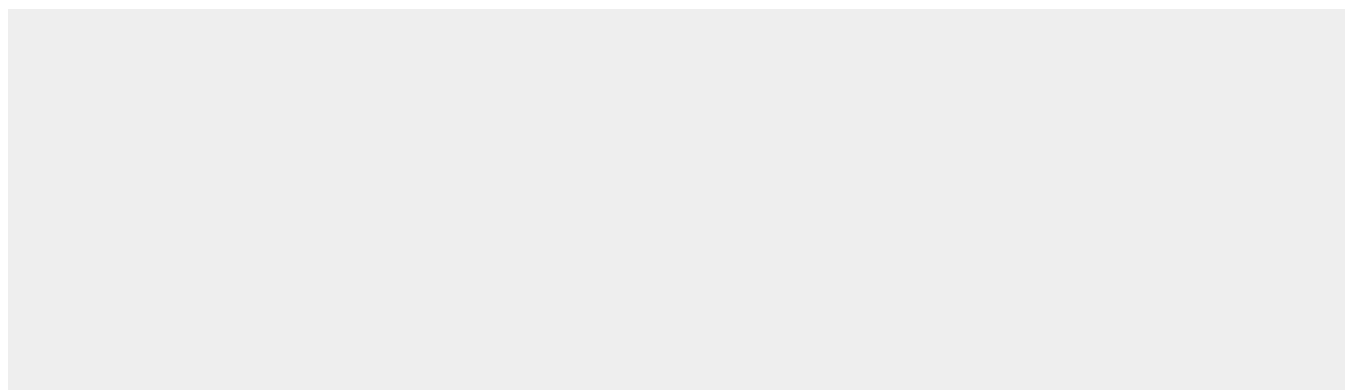
Nucleus. Cytoplasm. Nucleus membrane. Note=Cyclin D-CDK4 complexes accumulate at the nuclear membrane and are then translocated to the nucleus through interaction with KIP/CIP family members

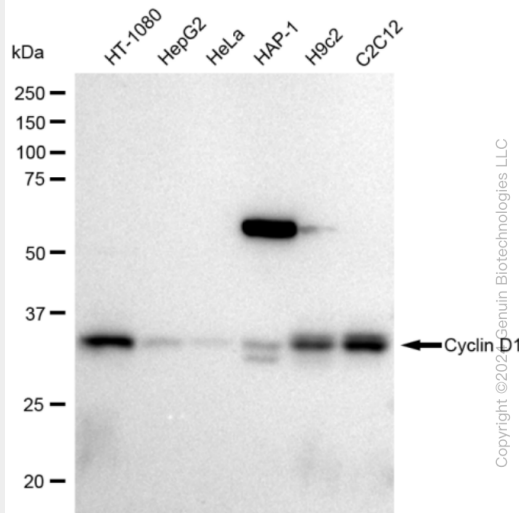
KD-Validated Anti-Cyclin D1 Rabbit Monoclonal Antibody - Protocols

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

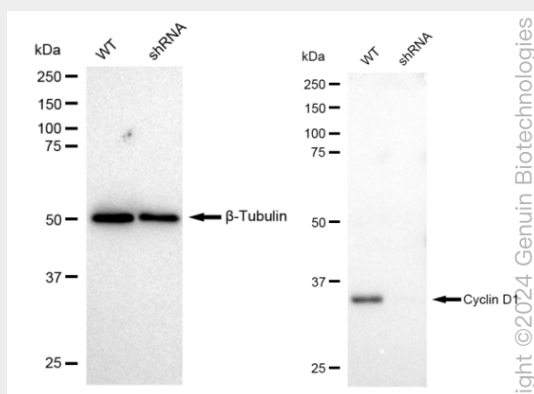
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-Cyclin D1 Rabbit Monoclonal Antibody - Images

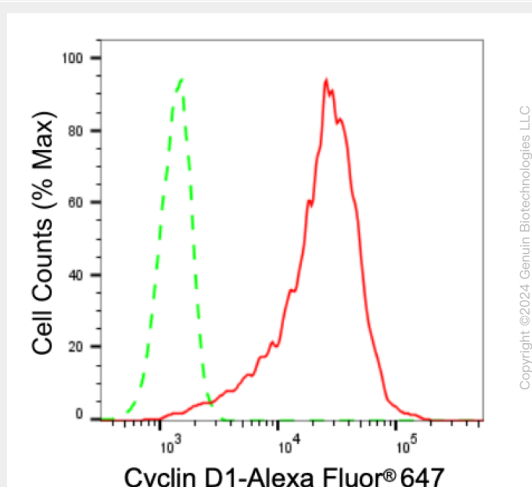




Western blotting analysis using anti-Cyclin D1 antibody (Cat#AGI2370). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Cyclin D1 antibody (Cat#AGI2370, 1:10,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.

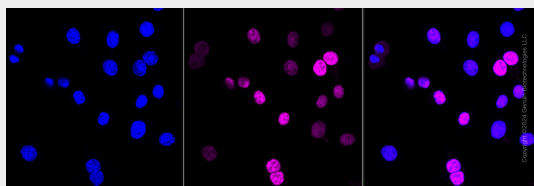


Western blotting analysis using anti-Cyclin D1 antibody (Cat#AGI2370). Cyclin D1 expression in wild type (WT) and Cyclin D1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Cyclin D1 antibody (Cat#AGI2370, 1:10,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.



Flow cytometric analysis of Cyclin D1 expression in C2C12 cells using Cyclin D1 antibody

(Cat#AGI2370, 1:2,000). Green, isotype control; red, Cyclin D1.



Immunocytochemical staining of C2C12 cells with Cyclin D1 antibody (Cat#AGI2370, 1:1,000). Nuclei were stained blue with DAPI; Cyclin D1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 μ m.