

Anti-Cyclin D1, Rabbit Monoclonal Antibody
Rabbit Monoclonal Antibody
Catalog # ABV11823**Specification**

Anti-Cyclin D1, Rabbit Monoclonal Antibody - Product Information

Application	IHC, WB
Primary Accession	P24385
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	33729

Anti-Cyclin D1, Rabbit Monoclonal Antibody - Additional Information**Gene ID 595**

Positive Control	WB: Hela cell lysate; IHC: human breast cancer tissue
Application & Usage	IHC: 1:500 -1:1000 dilution; WB: 1:1000 - 1:2000 dilution.
Alias Symbol	CCND1
Other Names	
G1/S-specific cyclin-D1, B-cell lymphoma 1 protein, BCL-1, PRAD1	

Appearance
Colorless liquid**Formulation**
In 50% Glycerol/PBS with 1% BSA and 0.09% sodium azide**Reconstitution & Storage**
-20 °C**Background Descriptions****Precautions**

Anti-Cyclin D1, Rabbit Monoclonal Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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:1833066, PubMed:1827756, PubMed:8114739, PubMed:8302605, PubMed:19412162, PubMed: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

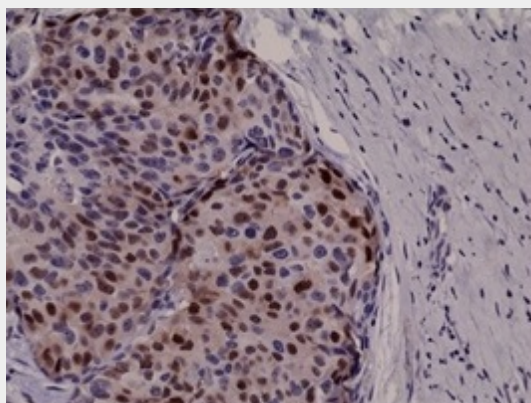
Nucleus. Cytoplasm Nucleus membrane. Note=Cyclin D-CDK4 complexes accumulate at the nuclear membrane and are then translocated to the nucleus through interaction with KIP/CIP family members

Anti-Cyclin D1, Rabbit Monoclonal Antibody - Protocols

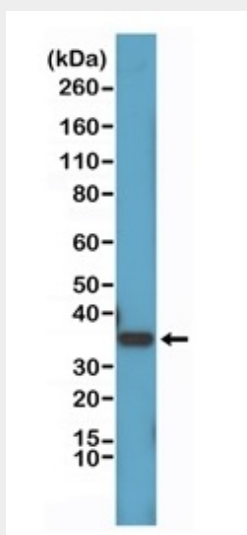
Provided below are standard protocols that you may find useful for product applications.

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

Anti-Cyclin D1, Rabbit Monoclonal Antibody - Images



Immunohistochemical staining of formalin fixed and paraffin embedded human breast cancer tissue sections using anti-Cyclin D1 monoclonal antibody at 1:1000 dilution.



Western blot of Hela cell lysates using anti-Cyclin D1 monoclonal antibody at 1:1000 dilution, showed a band of Cyclin D1 (~34kDa) expressed in Hela cells.

Anti-Cyclin D1, Rabbit Monoclonal 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 G1/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 G1 phase. Hypophosphorylates RB1 in early G1 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.