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Cyclin D1 Polyclonal Antibody
Catalog # AP63601

Specification

Cyclin D1 Polyclonal Antibody - Product Information

Application	**WB**
Primary Accession	P24385
Reactivity	**Rat, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**

Cyclin D1 Polyclonal 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)

Dilution
WB~~WB: 1:500-1:2000 IHC: 1:50-1:200

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

Cyclin D1 Polyclonal 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:8114739, PubMed:8302605).

Hypophosphorylates RB1 in early G(1) phase (PubMed:1827756, PubMed:1833066, PubMed:19412162, PubMed:8114739, PubMed:8302605). Cyclin D-CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals (PubMed:1827756, PubMed:1833066, PubMed:19412162, PubMed:8302605). 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).

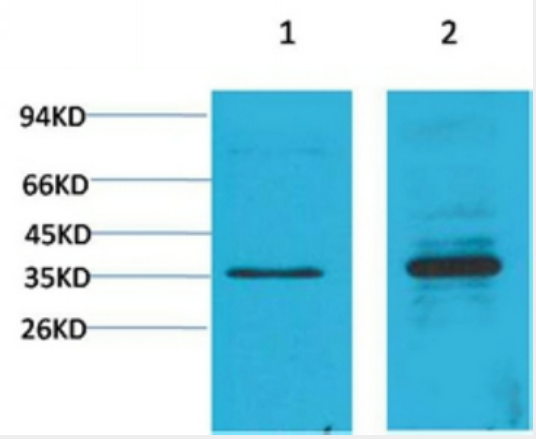
Cellular Location
Nucleus. Cytoplasm Nucleus membrane. Note=Cyclin D-CDK4 complexes accumulate at the nuclear membrane and are then translocated to the nucleus through interaction with KIP/CIP family members

Cyclin D1 Polyclonal 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 Cytomety
- Cell Culture

Cyclin D1 Polyclonal Antibody - Images



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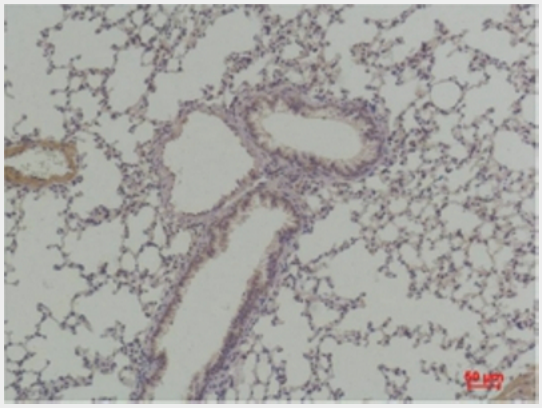

Cyclin D1 Polyclonal Antibody - Background

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 mitogenenic 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.