

CCND1 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8646b

Specification

CCND1 Antibody - Product Information

Application	WB,E
Primary Accession	P24385
Other Accession	Q6FI00
Reactivity	Human, Mouse
Predicted	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG1, κ
Calculated MW	33729

CCND1 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

Target/Specificity

This antibody is generated from a mouse immunized with a recombinant protein from human.

Dilution

WB~1:2000

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CCND1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CCND1 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 mitogenic 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

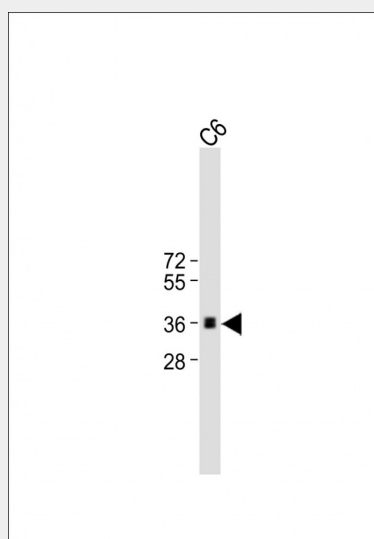
Nucleus. Cytoplasm Nucleus membrane. Note=Cyclin D-CDK4 complexes accumulate at the nuclear membrane and are then translocated to the nucleus through interaction with KIP/CIP family members

CCND1 Antibody - Protocols

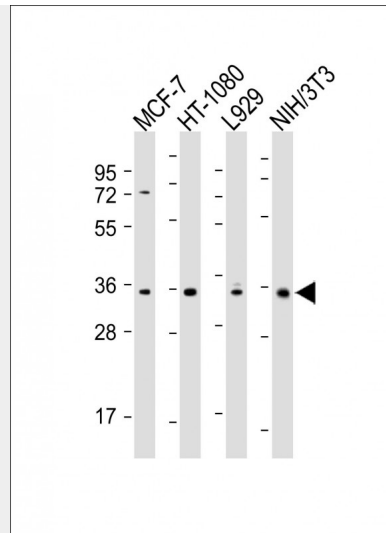
Provided below are standard protocols that you may find useful for product applications.

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

CCND1 Antibody - Images



All lanes : Anti-CCND1 at 1:2000 dilution Lane 1: C6 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG/A/M(H/L), Peroxidase conjugated at 1/2000 dilution. Observed band size : 33kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-CCND1 at dilution Lane 1: MCF-7 whole cell lysate Lane 2: HT-1080 whole cell lysate Lane 3: L929 whole cell lysate Lane 4: NIH/3T3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : kDa Blocking/Dilution buffer: 5% NFDM/TBST.

CCND1 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.

CCND1 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).