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CCND1 Antibody

Purified Mouse Monoclonal Antibody (Mab) Catalog # AM8646b

Product Information

Application WB, E
Primary Accession P24385
Other Accession Q6FI00

Reactivity Human, Rat, Mouse

PredictedHumanHostMouseClonalitymonoclonalIsotypeIgG1,κ

Clone Names 1849CT557.93.5

Calculated MW 33729

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/SpecificityThis antibody is generated from a mouse immunized with a recombinant

protein from human.

Dilution WB~~1:2000 E~~Use at an assay dependent concentration.

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.

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

Background

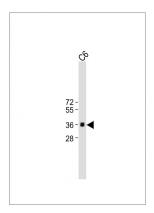
Regulatory component of the cyclin D1-CDK4 (DC) complex that phosphorylates and inhibits members of the retinoblastoma (RB) protein family including RB1 and regulates the cell-cycle during G(1)/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complex 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.

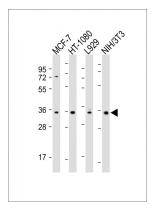
References

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).

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.