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Cyclin D2 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52709

Product Information

Application	WB
Primary Accession	P30279
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	33067

Additional Information

Gene ID	894
Other Names	CCND 2;CCND2;CCND2_HUMAN;CyclinD2;G1/S specific cyclin D2;G1/S-specific cyclin-D2; KIAK0002;MGC102758.
Dilution	WB~~1:1000
Format	Purified mouse monoclonal in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	CCND2 {ECO:0000303|PubMed:1386336, ECO:0000312|HGNC:HGNC:1583}
Function	Regulatory component of the cyclin D2-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:18827403, PubMed:8114739). 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:18827403, PubMed:8114739). Hypophosphorylates RB1 in early G(1) phase (PubMed:18827403, PubMed:8114739). Cyclin D-CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals (PubMed:18827403, PubMed:8114739).
Cellular Location	Nucleus. Cytoplasm. Nucleus membrane. Note=Cyclin D-CDK4 complexes accumulate at the nuclear membrane and are then translocated into the nucleus through interaction with KIP/CIP family members

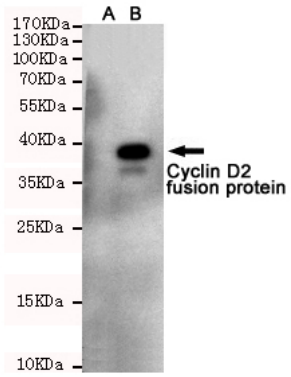
Background

Regulatory component of the cyclin D2-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 D2/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex (By similarity).

References

Xiong Y.,et al.Genomics 13:575-584(1992).
Palmero I.,et al.Oncogene 8:1049-1054(1993).
Miyajima N.,et al.Submitted (MAR-1993) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images



Western blot detection of Cyclin D2 in CHO-K1 cell lysate(A)and CHO-K1 transfected by Cyclin D2-fragment EGFP fusion protein(B)cell lysate using Cyclin D2 mouse mAb (1:1000 diluted).Predicted band size:38KDa.Observed band size:38KDa.