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Cyclin D1 (G1-Cyclin & Mantle Cell Marker) Mouse Monoclonal Antibody [Clone DCS-6]

Purified Mouse Monoclonal Antibody
Catalog # AH10365

Product Information

Application	IF, FC
Primary Accession	P24385
Other Accession	P25322, P39948 (Rat)
Reactivity	Human, Mouse, Rat, Monkey
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a, kappa
Clone Names	DCS-6
Calculated MW	33729

Additional Information

Gene ID	595
Other Names	B cell CLL/lymphoma 1, B cell leukemia 1, B-cell lymphoma 1 protein, BCL-1 oncogene, CCND1 protein, CCND1/FSTL3 fusion gene, CCND1/IGHG1 fusion gene CCND1/IGLC1 fusion gene, CCND1/PTH fusion gene, cD1, Cyl 1, G1/S-specific cyclin-D1, Parathyroid adenomatosis 1, PRAD1 oncogene
Target/Specificity	Human recombinant full length cyclin D1 protein
Application Note	low Cytometry (5ul per test per one million cells or 5ul per 100ul of whole blood); Immunofluorescence (1:50-1:100 for 30 minutes at RT) ; (Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes) ; Optimal dilution for a specific application should be determined.
Format	0.5ml at 100ug/ml with BSA and azide
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Cyclin D1 (G1-Cyclin & Mantle Cell Marker) Mouse Monoclonal Antibody [Clone DCS-6] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

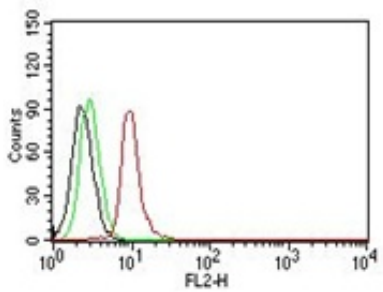
Name	CCND1 {ECO:0000303|PubMed:8204893, ECO:0000312|HGNC:HGNC:1582} Regulatory component of the cyclin D1-CDK4 (DC) complex that

Function	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

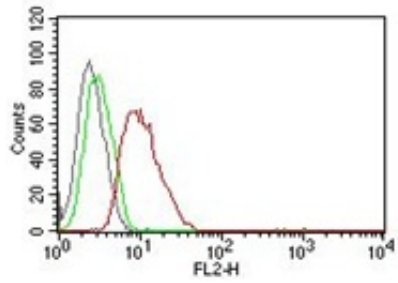
References

1. Lukas J, et. al. Oncogene, 1994, 9(3):707-18.
2. Gillett C, et. al. Cancer Research, 1994, 54(7):1812-7.
3. Bartkova J, et. al. Journal of Pathology, 1994, 172(3):237-45.

Images



Flow Cytometric analysis of human Cyclin D1 on Jurkat Cells. Black: Cells alone; Green: Isotype Control; Red: PE-labeled Cyclin D1 MAb (DCS-6).



Flow Cytometric analysis of human Cyclin D1 on MCF-7 Cells. Black: Cells alone; Green: Isotype Control; Red: PE-labeled Cyclin D1 MAb (DCS-6).