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## Cyclin D1 Antibody

**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W, IP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 36	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P24385	<b>Entrez-Gene Id:</b> 595
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<b>Product Usage Information</b>	<b>Application</b> Western Blotting Immunoprecipitation	<b>Dilution</b> 1:1000 1:50
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.	
<b>Specificity/Sensitivity</b>	Cyclin D1 Antibody detects endogenous levels of cyclin D1. It does not cross-react with other family members.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu259 of human cyclin D1 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	Activity of the cyclin-dependent kinases CDK4 and CDK6 is regulated by T-loop phosphorylation, by the abundance of their cyclin partners (the D-type cyclins), and by association with CDK inhibitors of the Cip/Kip or INK family of proteins (1). The inactive ternary complex of cyclin D/CDK4 and p27 Kip1 requires extracellular mitogenic stimuli for the release and degradation of p27 concomitant with a rise in cyclin D levels to affect progression through the restriction point and Rb-dependent entry into S-phase (2). The active complex of cyclin D/CDK4 targets the retinoblastoma protein for phosphorylation, allowing the release of E2F transcription factors that activate G1/S-phase gene expression (3). Levels of cyclin D protein drop upon withdrawal of growth factors through downregulation of protein expression and phosphorylation-dependent degradation (4).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>Hirai, H. et al. (1995) <i>Mol Cell Biol</i> 15, 2672-81.</li> <li>Sherr, C.J. (1996) <i>Science</i> 274, 1672-7.</li> <li>Lukas, J. et al. (1996) <i>Mol Cell Biol</i> 16, 6917-25.</li> <li>Diehl, J.A. et al. (1997) <i>Genes Dev</i> 11, 957-72.</li> </ol>	
<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.	
<b>Applications Key</b>	<b>W:</b> Western Blotting <b>IP:</b> Immunoprecipitation	
<b>Cross-Reactivity Key</b>	<b>H:</b> Human	
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