Cyclin D1 Antibody

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

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<th>Applications</th>
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<th>Reactivity</th>
<th>H</th>
<th>Sensitivity</th>
<th>Endogenous</th>
<th>MW (kDa)</th>
<th>36</th>
<th>Source</th>
<th>Rabbit</th>
<th>UniProt ID</th>
<th>#P24385</th>
<th>Entrez-Gene Id</th>
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**Product Usage Information**

**Application**
- Western Blotting
- Immunoprecipitation

**Dilution**
- 1:1000
- 1:50

**Storage**
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.

**Specificity / Sensitivity**
Cyclin D1 Antibody detects endogenous levels of cyclin D1. It does not cross-react with other family members.

**Source / Purification**
Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of cyclin D1. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**
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).

**Background References**

**Species Reactivity**
Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**
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.

**Applications Key**
- WB: Western Blotting
- IP: Immunoprecipitation

**Cross-Reactivity Key**
- H: human
- M: mouse
- R: rat
- Hm: hamster
- Mk: monkey
- Vr: virus
- M: mink
- C: chicken
- Dm: D. melanogaster
- X: Xenopus
- Z: zebrafish
- B: bovine
- Dg: dog
- Pg: pig
- Sc: S. cerevisiae
- Ce: C. elegans
- Hr: horse
- GP: Guinea Pig
- Rab: rabbit
- All: all species expected

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