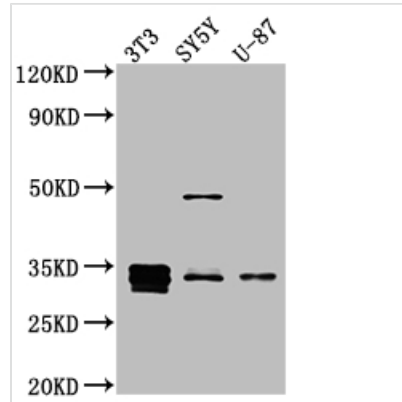




# CCND1 Antibody

<b>Product Code</b>	CSB-RA616025A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P24385
<b>Immunogen</b>	A synthesized peptide derived from human Cyclin D1
<b>Species Reactivity</b>	Human, Mouse
<b>Tested Applications</b>	ELISA, WB; Recommended dilution: WB:1:500-1:5000
<b>Relevance</b>	<p>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 mitogenic 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.</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Epigenetics and Nuclear Signaling; Cancer; Cell biology
<b>Gene Names</b>	CCND1
<b>Accession NO.</b>	5D8
<b>Image</b>	


**Western Blot**

Positive WB detected in: NIH/3T3 whole cell lysate, SH-SY5Y whole cell lysate, U-87 whole cell lysate

All lanes: Cyclin D1 antibody at 1:1000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 34 kDa

Observed band size: 34 kDa

**Description**

CCND1 is a crucial gatekeeping protein that regulates the transition from the G1 to S phase of the cell cycle by controlling the restriction point. It's involved in cellular growth, metabolism, and differentiation, among other things. CCND1 modulates histone acetylation and chromatin remodeling proteins through interacting with transcription factors, coactivators, and corepressors. The CCND1 gene is an oncogene that promotes cell proliferation, growth, angiogenesis, and chemotherapy and radiotherapy resistance. CCND1 amplification has recently been linked to a poor response to immune checkpoint inhibitors in numerous studies (ICIs).

Recombinant antibody-producing mammalian cell lines were generated by transfecting plasma vectors containing antibody light and heavy chains into mammalian cell lines cultivated in the medium. The recombinant antibody against CCND1 was purified from the culture medium using Affinity-chromatography. It has been validated to detect CCND1 protein from Human, Mouse in the ELISA, WB.