

**Cyclin D3 (Phospho-Thr283) Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP52373****Specification**

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**Cyclin D3 (Phospho-Thr283) Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P30281</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	32520

**Cyclin D3 (Phospho-Thr283) Antibody - Additional Information****Gene ID** 896**Other Names**

G1/S-specific cyclin-D3, CCND3

**Dilution**

WB~~1:1000

IHC~~1:50~100

**Format**Rabbit IgG in phosphate buffered saline (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.**Storage Conditions**

-20°C

**Cyclin D3 (Phospho-Thr283) Antibody - Protein Information****Name** CCND3 {ECO:0000303|PubMed:1386336, ECO:0000312|HGNC:HGNC:1585}**Function**

Regulatory component of the cyclin D3-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:<a href="http://www.uniprot.org/citations/8114739" target="\_blank">8114739</a>). 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:<a href="http://www.uniprot.org/citations/8114739" target="\_blank">8114739</a>). Hypophosphorylates RB1 in early G(1) phase (PubMed:<a href="http://www.uniprot.org/citations/8114739" target="\_blank">8114739</a>). Cyclin D- CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals (PubMed:<a href="http://www.uniprot.org/citations/8114739" target="\_blank">8114739</a>). Component of the ternary complex, cyclin D3/CDK4/CDKN1B, required for nuclear translocation and activity of

the cyclin D-CDK4 complex (PubMed:<a href="http://www.uniprot.org/citations/16782892" target="\_blank">16782892</a>). Shows transcriptional coactivator activity with ATF5 independently of CDK4 (PubMed:<a href="http://www.uniprot.org/citations/15358120" target="\_blank">15358120</a>).

#### **Cellular Location**

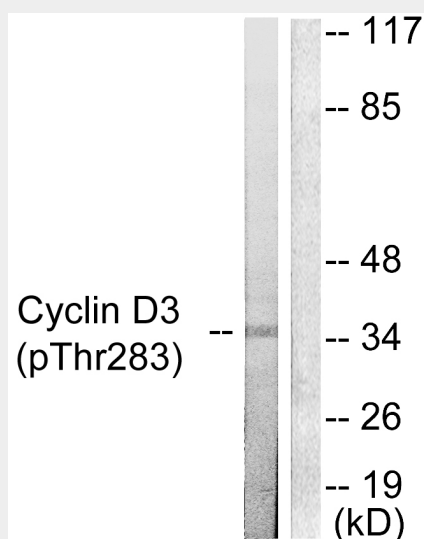
Nucleus. Cytoplasm

#### **Cyclin D3 (Phospho-Thr283) Antibody - Protocols**

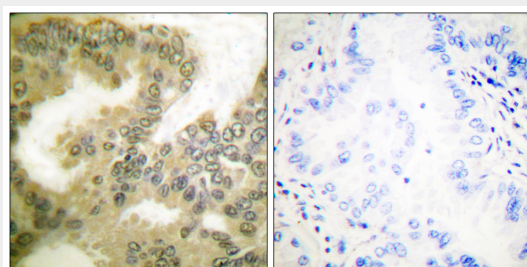
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **Cyclin D3 (Phospho-Thr283) Antibody - Images**



Western blot analysis of extracts from K562 cells treated with UV (5mins), using Cyclin D3 (Phospho-Thr283) Antibody (#A0418).



Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue using Cyclin D3 (Phospho-Thr283) Antibody (#A0418).

### **Cyclin D3 (Phospho-Thr283) Antibody - Background**

Regulatory component of the cyclin D3-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 D3/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex.

### **Cyclin D3 (Phospho-Thr283) Antibody - References**

Xiong Y.,et al.Genomics 13:575-584(1992).  
Motokura T.,et al.J. Biol. Chem. 267:20412-20415(1992).  
Li W.B.,et al.Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.