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# Cyclin D3 (Phospho-Thr283) Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52373

## Product Information

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|---|---|
| **Application** | WB, IHC |
| **Primary Accession** | P30281 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 32520 |

## Additional Information

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|---|---|
| **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 Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol. |
| **Storage Conditions** | -20℃ |

## Protein Information

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|---|---|
| **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:8114739). 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:8114739). Hypophosphorylates RB1 in early G(1) phase (PubMed:8114739). Cyclin D- CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals (PubMed:8114739). Component of the ternary complex, cyclin D3/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex (PubMed:16782892). Shows transcriptional coactivator activity with ATF5 independently of CDK4 (PubMed:15358120). |
| **Cellular Location** | Nucleus. Cytoplasm |

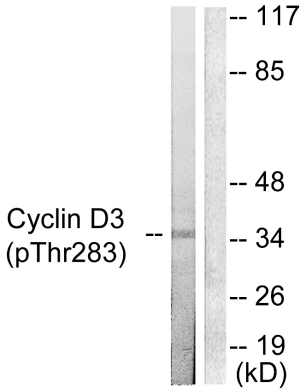
## Background

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 mitogenenic 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.

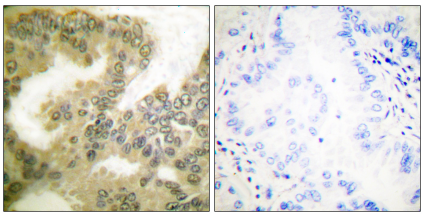
## References


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.


## 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).