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# (RAT) Ccnd3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20912b

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P48961 |
| **Reactivity** | Human, Rat, Mouse |
| **Predicted** | Bovine, Canine |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB43404 |
| **Calculated MW** | 32434 |

## Additional Information

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| **Gene ID** | 25193 |
| **Other Names** | G1/S-specific cyclin-D3, Ccnd3 |
| **Target/Specificity** | This rat Ccnd3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 33-66 amino acids from the N-terminal region of rat Ccnd3. |
| **Dilution** | WB~~1:500-1:1000 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | (RAT) Ccnd3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | Ccnd3 {ECO:0000312\|RGD:2293} |
| **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. 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. Component of the ternary complex, cyclin D3/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex. Shows transcriptional coactivator activity with ATF5 independently of CDK4.

**Cellular Location** Nucleus {ECO:0000250|UniProtKB:P30281}. Cytoplasm {ECO:0000250|UniProtKB:P30281}

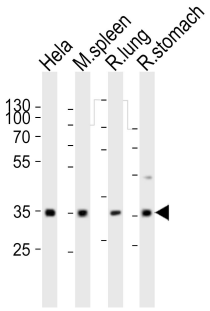
## Background

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.

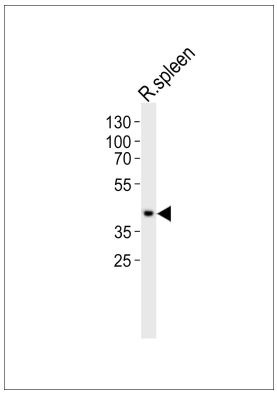
## References

Hosokawa Y.,et al.Gene 147:249-252(1994).
Yang M.,et al.Gene 181:153-159(1996).

## Images




Western blot analysis of lysates from Hela cell line, mouse spleen, rat lung, rat stomach tissue (from left to right), using Ccnd3 Antibody (N-term)(Cat. #AP20912b). AP20912b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.




Western blot analysis of lysate from rat spleen tissue, using Ccnd3 Antibody (N-term)(Cat. #AP20912b). AP20912b was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.