

# CCND3 Antibody (C-term S274)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP20418b

#### Specification

### CCND3 Antibody (C-term S274) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region WB, IHC-P,E <u>P30281</u> <u>P30282</u>, <u>O3MHH5</u> Human, Mouse Bovine Rabbit Polyclonal Rabbit IgG 32520 252-281

#### CCND3 Antibody (C-term S274) - Additional Information

Gene ID 896

Other Names G1/S-specific cyclin-D3, CCND3

**Target/Specificity** This CCND3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 252-281 amino acids from the C-terminal region of human CCND3.

**Dilution** WB~~1:1000 IHC-P~~1:100 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** CCND3 Antibody (C-term S274) is for research use only and not for use in diagnostic or therapeutic procedures.

#### CCND3 Antibody (C-term S274) - 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:<u>8114739</u>). 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:<u>8114739</u>). Hypophosphorylates RB1 in early G(1) phase (PubMed:<u>8114739</u>). Cyclin D- CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals (PubMed:<u>8114739</u>). Component of the ternary complex, cyclin D3/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex (PubMed:<u>16782892</u>). Shows transcriptional coactivator activity with ATF5 independently of CDK4 (PubMed:<u>15358120</u>).

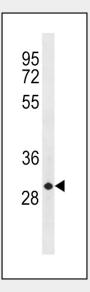
Cellular Location Nucleus. Cytoplasm

# CCND3 Antibody (C-term S274) - Protocols

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

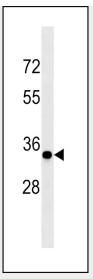
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

CCND3 Antibody (C-term S274) - Images

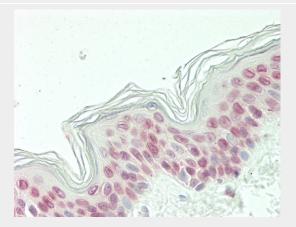


CCND3 Antibody (C-term S274) (Cat. #AP20418b) western blot analysis in MDA-MB231 cell line lysates (35ug/lane). This demonstrates the CCND3 antibody detected the CCND3 protein (arrow).





CCND3 Antibody (C-term S274) (Cat. #AP20418b) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane). This demonstrates the CCND3 antibody detected the CCND3 protein (arrow).



Formalin-fixed and paraffin-embedded H.skin tissue reacted with CCND3 Antibody (C-term S274) (Cat#AP20418b).

# CCND3 Antibody (C-term S274) - 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.