

**CCND3 Blocking Peptide (C-term S274)**

Synthetic peptide

Catalog # BP20418b

**Specification**

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**CCND3 Blocking Peptide (C-term S274) - Product Information**

Primary Accession

[P30281](#)

Other Accession

[P30282](#), [Q3MHH5](#)**CCND3 Blocking Peptide (C-term S274) - Additional Information**

Gene ID 896

**Other Names**

G1/S-specific cyclin-D3, CCND3

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**CCND3 Blocking Peptide (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:<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 mitogenic 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

**CCND3 Blocking Peptide (C-term S274) - Protocols**

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

- [Blocking Peptides](#)

**CCND3 Blocking Peptide (C-term S274) - Images****CCND3 Blocking Peptide (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.