

**CCND2 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP14421a****Specification**

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**CCND2 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P30279](#)**CCND2 Antibody (N-term) Blocking Peptide - Additional Information**

Gene ID 894

**Other Names**

G1/S-specific cyclin-D2, CCND2

**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.

**CCND2 Antibody (N-term) Blocking Peptide - Protein Information****Name** CCND2 {ECO:0000303|PubMed:1386336, ECO:0000312|HGNC:HGNC:1583}**Function**

Regulatory component of the cyclin D2-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>, PubMed:<a href="http://www.uniprot.org/citations/18827403" target="\_blank">18827403</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>, PubMed:<a href="http://www.uniprot.org/citations/18827403" target="\_blank">18827403</a>). Hypophosphorylates RB1 in early G(1) phase (PubMed:<a href="http://www.uniprot.org/citations/8114739" target="\_blank">8114739</a>, PubMed:<a href="http://www.uniprot.org/citations/18827403" target="\_blank">18827403</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>, PubMed:<a href="http://www.uniprot.org/citations/18827403" target="\_blank">18827403</a>).

**Cellular Location**

Nucleus. Cytoplasm. Nucleus membrane. Note=Cyclin D-CDK4 complexes accumulate at the



nuclear membrane and are then translocated into the nucleus through interaction with KIP/CIP family members

### **CCND2 Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **CCND2 Antibody (N-term) Blocking Peptide - Images**

### **CCND2 Antibody (N-term) Blocking Peptide - Background**

The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activity is required for cell cycle G1/S transition. This protein has been shown to interact with and be involved in the phosphorylation of tumor suppressor protein Rb. Knockout studies of the homologous gene in mouse suggest the essential roles of this gene in ovarian granulosa and germ cell proliferation. High level expression of this gene was observed in ovarian and testicular tumors.

### **CCND2 Antibody (N-term) Blocking Peptide - References**

Shimada, M., et al. Hum. Genet. 128(4):433-441(2010) Park, T.J., et al. J. Hum. Genet. 55(7):416-420(2010) Kamatani, Y., et al. Nat. Genet. 42(3):210-215(2010) Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010) : Kosmaczewska, A., et al. Oncol. Res. 18 (2-3), 127-131 (2009) :