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CCND2 Blocking Peptide (C-term S279/T280)

Synthetic peptide
Catalog # BP20416b

Specification

CCND2 Blocking Peptide (C-term S279/T280) - Product Information

Primary Accession	P30279
Other Accession	Q8WNW2, Q0P5D3

CCND2 Blocking Peptide (C-term S279/T280) - 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 Blocking Peptide (C-term S279/T280) - 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:8114739, PubMed:18827403). 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, PubMed:18827403). Hypophosphorylates RB1 in early G(1) phase (PubMed:8114739, PubMed:18827403). Cyclin D-CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals (PubMed:8114739, PubMed:18827403).

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 Blocking Peptide (C-term S279/T280) - Protocols

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

- Blocking Peptides

CCND2 Blocking Peptide (C-term S279/T280) - Images

CCND2 Blocking Peptide (C-term S279/T280) - Background

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. 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 D2/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex (By similarity).