

(RAT) Ccnd3 Blocking Peptide (N-term)
Synthetic peptide
Catalog # BP20912b

Specification

(RAT) Ccnd3 Blocking Peptide (N-term) - Product Information

Primary Accession [P48961](#)

(RAT) Ccnd3 Blocking Peptide (N-term) - Additional Information

Gene ID 25193

Other Names

G1/S-specific cyclin-D3, Ccnd3

Target/Specificity

The synthetic peptide sequence is selected from aa 33-46 of RAT 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.

(RAT) Ccnd3 Blocking Peptide (N-term) - Protein Information

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 mitogenic 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}

(RAT) Ccnd3 Blocking Peptide (N-term) - Protocols

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

- [Blocking Peptides](#)

(RAT) Ccnd3 Blocking Peptide (N-term) - Images**(RAT) Ccnd3 Blocking Peptide (N-term) - 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 mitogenic 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.

(RAT) Ccnd3 Blocking Peptide (N-term) - References

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