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CDKN1B-Y88 Blocking Peptide

Synthetic peptide
Catalog # BP20721b

Specification

CDKN1B-Y88 Blocking Peptide - Product Information

Primary Accession	P46527
Other Accession	O60439

CDKN1B-Y88 Blocking Peptide - Additional Information

Gene ID 1027

Other Names
Cyclin-dependent kinase inhibitor 1B, Cyclin-dependent kinase inhibitor p27, p27Kip1, CDKN1B, KIP1

Target/Specificity
The synthetic peptide sequence is selected from aa 81-93 of HUMAN CDKN1B

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.

CDKN1B-Y88 Blocking Peptide - Protein Information

Name CDKN1B

Synonyms KIP1

Function
Important regulator of cell cycle progression. Inhibits the kinase activity of

CDKN1B-Y88 Blocking Peptide - Background

Important regulator of cell cycle progression. Involved in G1 arrest. Potent inhibitor of cyclin E- and cyclin A-CDK2 complexes. Forms a complex with cyclin type D-CDK4 complexes and is involved in the assembly, stability, and modulation of CCND1- CDK4 complex activation. Acts either as an inhibitor or an activator of cyclin type D-CDK4 complexes depending on its phosphorylation state and/or stoichometry.

CDKN1B-Y88 Blocking Peptide - References

Polyak K.,et al.Cell 78:59-66(1994).
Pietenpol J.A.,et al.Cancer Res. 55:1206-1210(1995).
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Montagnoli A.,et al.Genes Dev. 13:1181-1189(1999).
Ishida N.,et al.J. Biol. Chem. 275:25146-25154(2000).

CDK2 bound to cyclin A, but has little inhibitory activity on CDK2 bound to SPDYA (PubMed:28666995). Involved in G1 arrest. Potent inhibitor of cyclin E- and cyclin A-CDK2 complexes. Forms a complex with cyclin type D-CDK4 complexes and is involved in the assembly, stability, and modulation of CCND1-CDK4 complex activation. Acts either as an inhibitor or an activator of cyclin type D-CDK4 complexes depending on its phosphorylation state and/or stoichometry.

Cellular Location
Nucleus. Cytoplasm. Endosome. Note=Nuclear and cytoplasmic in quiescent cells. AKT- or RSK-mediated phosphorylation on Thr-198, binds 14-3-3, translocates to the cytoplasm and promotes cell cycle progression. Mitogen-activated UHMK1 phosphorylation on Ser-10 also results in translocation to the cytoplasm and cell cycle progression. Phosphorylation on Ser-10 facilitates nuclear export. Translocates to the nucleus on phosphorylation of Tyr-88 and Tyr-89. Colocalizes at the endosome with SNX6; this leads to lysosomal degradation (By similarity)

Tissue Location
Expressed in all tissues tested. Highest levels in skeletal muscle, lowest in liver and kidney

CDKN1B-Y88 Blocking Peptide - Protocols

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

- Blocking Peptides