

CIB1 Blocking Peptide (C-term)

Synthetic peptide

Catalog # BP19982b

Specification

CIB1 Blocking Peptide (C-term) - Product Information

Primary Accession

[O99828](#)

Other Accession

[O9R010](#), [O9Z0F4](#), [NP_006375.2](#)**CIB1 Blocking Peptide (C-term) - Additional Information****Gene ID** 10519**Other Names**

Calcium and integrin-binding protein 1, CIB, Calcium- and integrin-binding protein, CIBP, Calmyrin, DNA-PKcs-interacting protein, Kinase-interacting protein, KIP, SNK-interacting protein 2-28, SIP2-28, CIB1, CIB, KIP, PRKDCIP

Target/Specificity

The synthetic peptide sequence is selected from aa 137-151 of HUMAN CIB1

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.

CIB1 Blocking Peptide (C-term) - Protein Information**Name** CIB1**Synonyms** CIB, KIP, PRKDCIP**Function**

Calcium-binding protein that plays a role in the regulation of numerous cellular processes, such as cell differentiation, cell division, cell proliferation, cell migration, thrombosis, angiogenesis, cardiac hypertrophy and apoptosis. Involved in bone marrow megakaryocyte differentiation by negatively regulating thrombopoietin- mediated signaling pathway. Participates in the endomitotic cell cycle of megakaryocyte, a form of mitosis in which both karyokinesis and cytokinesis are interrupted. Plays a role in integrin signaling by negatively regulating alpha-IIb/beta3 activation in thrombin-stimulated megakaryocytes preventing platelet aggregation. Up-regulates PTK2/FAK1 activity, and is also needed for the recruitment of PTK2/FAK1 to focal adhesions; it thus appears to play an important role in focal adhesion formation. Positively regulates cell migration on fibronectin in a CDC42-dependent manner, the effect being negatively regulated by PAK1.

Functions as a negative regulator of stress activated MAP kinase (MAPK) signaling pathways. Down-regulates inositol 1,4,5-trisphosphate receptor-dependent calcium signaling. Involved in sphingosine kinase SPHK1 translocation to the plasma membrane in a N-myristoylation-dependent manner preventing TNF-alpha-induced apoptosis. Regulates serine/threonine-protein kinase PLK3 activity for proper completion of cell division progression. Plays a role in microtubule (MT) dynamics during neuronal development; disrupts the MT depolymerization activity of STMN2 attenuating NGF-induced neurite outgrowth and the MT reorganization at the edge of lamellipodia. Promotes cardiomyocyte hypertrophy via activation of the calcineurin/NFAT signaling pathway. Stimulates calcineurin PPP3R1 activity by mediating its anchoring to the sarcolemma. In ischemia-induced (pathological or adaptive) angiogenesis, stimulates endothelial cell proliferation, migration and microvessel formation by activating the PAK1 and ERK1/ERK2 signaling pathway. Promotes also cancer cell survival and proliferation. May regulate cell cycle and differentiation of spermatogenic germ cells, and/or differentiation of supporting Sertoli cells. (Microbial infection) Involved in keratinocyte-intrinsic immunity to human beta-papillomaviruses (HPVs).

Cellular Location

Membrane; Lipid-anchor. Cell membrane, sarcolemma. Cell membrane. Apical cell membrane. Cell projection, ruffle membrane. Cell projection, filopodium tip. Cell projection, growth cone. Cell projection, lamellipodium. Cytoplasm. Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, perinuclear region. Nucleus. Cell projection, neuron projection. Perikaryon. Note=Colocalized with PPP3R1 at the cell membrane of cardiomyocytes in the hypertrophic heart (By similarity) Colocalized with NBR1 to the perinuclear region. Colocalizes with TAS1R2 in apical regions of taste receptor cells. Colocalized with RAC3 in the perinuclear area and at the cell periphery. Colocalized with PAK1 within membrane ruffles during cell spreading upon readhesion to fibronectin. Redistributed to the cytoskeleton upon platelet aggregation. Translocates from the cytosol to the plasma membrane in a calcium-dependent manner. Colocalized with PLK3 at centrosomes in ductal breast carcinoma cells.

Tissue Location

Ubiquitously expressed. Expressed in the epidermis, hair follicles and keratinocytes (PubMed:30068544). Detected in platelets and in cell lines of megakaryocytic and erythrocytic lineages. Both isoform 1 and isoform 2 are detected in various cancer cell lines, with isoform 2 being the predominant form (at protein level).

CIB1 Blocking Peptide (C-term) - Protocols

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

- [Blocking Peptides](#)

CIB1 Blocking Peptide (C-term) - Images

CIB1 Blocking Peptide (C-term) - Background

The protein encoded by this gene is a member of the calcium-binding protein family. The specific function of this protein has not yet been determined; however this protein is known to interact with DNA-dependent protein kinase and may play a role in kinase-phosphatase regulation of DNA end joining. This protein also interacts with integrin alpha(IIb)beta(3), which may implicate this protein as a regulatory molecule for alpha(IIb)beta(3).

CIB1 Blocking Peptide (C-term) - References

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