

Anti-CIB1 Picoband Antibody

Catalog # ABO12177

Product Information

Application	WB
Primary Accession	Q99828
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Calcium and integrin-binding protein 1(CIB1) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Calculated MW	21703
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	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. 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 STMN2 in the cell body, neurites and growth cones of neurons. Colocalized with STMN2 to the leading edge of lamellipodia. Colocalized with PLK3 at centrosomes in ductal breast carcinoma cells. .
Tissue Specificity	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).

	Ubiquitously expressed. .
Source	Eukaryota
Protein Name	Calcium and integrin-binding protein 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E.coli-derived human CIB1 recombinant protein (Position: S6-L191). Human CIB1 shares 93.5% amino acid (aa) sequence identity with both mouse and rat CIB1.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.

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-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. Also promotes cancer cell survival and proliferation. May regulate cell cycle and differentiation of spermatogenic germ cells, and/or differentiation of supporting Sertoli cells. Forms a complex with TMC6/EVER1 and TMC8/EVER2 in lymphocytes and keratinocytes where CIB1 stabilizes TMC6 and TMC8 levels and reciprocally (PubMed:30068544, PubMed:32917726).

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.

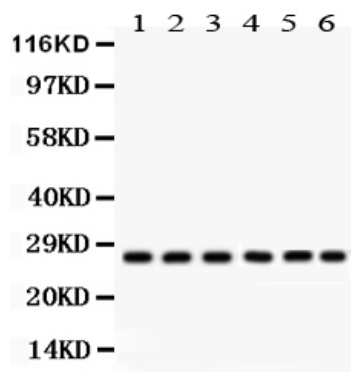
Tissue Location

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).

Background

Calcium and integrin-binding protein 1 is a protein that in humans is encoded by the CIB1 gene. This gene encodes a member of the EF-hand domain-containing calcium-binding superfamily. And this protein interacts with many other proteins, including the platelet integrin alpha-IIb-beta-3, DNA-dependent protein kinase, presenilin-2, focal adhesion kinase, p21 activated kinase, and protein kinase D. Moreover, the encoded protein may be involved in cell survival and proliferation, and is associated with several disease states including cancer and Alzheimer's disease. Alternative splicing results in multiple transcript variants.

Images



Anti- CIB1 Picoband antibody, ABO12177, Western blottingAll lanes: Anti CIB1 (ABO12177) at 0.5ug/mlLane 1: Rat Spleen Tissue Lysate at 50ugLane 2: Rat Brain Tissue Lysate at 50ugLane 3: Rat Thymus Tissue Lysate at 50ugLane 4: Human Placenta Tissue Lysate at 50ugLane 5: MCF-7 Whole Cell Lysate at 40ugLane 6: NIH3T3 Whole Cell Lysate at 40ugPredicted bind size: 27KDObserved bind size: 27KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.