

Anti-Integrin linked ILK Picoband Antibody

Catalog # ABO12634

Specification

Anti-Integrin linked ILK Picoband Antibody - Product Information

ApplicationWBPrimary Accession013418HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionPoten kinase(ILK) detection. Tested with WB inHuman;Mouse;Rat.Human;Mouse;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Integrin linked ILK Picoband Antibody - Additional Information

Gene ID 3611

Other Names Integrin-linked protein kinase, 2.7.11.1, 59 kDa serine/threonine-protein kinase, ILK-1, ILK-2, p59ILK, ILK, ILK1, ILK2

Calculated MW 51419 MW KDa

Application Details Western blot, 0.1-0.5 μg/ml, Human, Mouse, Rat

Subcellular Localization

Cell junction, focal adhesion. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, lamellipodium . Cytoplasm, myofibril, sarcomere.

Tissue Specificity

Highly expressed in heart followed by skeletal muscle, pancreas and kidney. Weakly expressed in placenta, lung and liver.

Protein Name Integrin-linked protein kinase

Contents Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen

E.coli-derived human Integrin linked ILK recombinant protein (Position: M1-H2O3). Human Integrin linked ILK shares 99.5% amino acid (aa) sequence identity with both mouse and rat Integrin linked



ILK.

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.

Anti-Integrin linked ILK Picoband Antibody - Protein Information

Name ILK (HGNC:6040)

Function

Scaffold protein which mediates protein-protein interactions during a range of cellular events including focal adhesion assembly, cell adhesion and cell migration (PubMed:17420447, PubMed:20005845, PubMed:30367047, PubMed:32528174). Regulates integrin-mediated signal transduction by contributing to inside-out integrin activation (By similarity). Recruits PARVA and LIMS1/PITCH to form the heterotrimeric IPP (ILK-PINCH-PARVIN) complex which binds to F-actin via the C- terminal tail of LIMS1 and the N-terminal region of PARVA, promoting F- actin filament bundling, a process required to generate force for actin cytoskeleton reorganization and subsequent dynamic cell adhesion events such as cell spreading and migration (PubMed: 30367047). Binding to PARVA promotes effective assembly of ILK into focal adhesions while PARVA-bound ILK can simultaneously engage integrin-beta cytoplasmic tails to mediate cell adhesion (PubMed:20005845). Plays a role with PARVG in promoting the cell adhesion and spreading of leukocytes (PubMed: 16517730). Acts as an upstream effector of both AKT1/PKB and GSK3 (PubMed:9736715). Mediates trafficking of caveolae to the cell surface in an ITGB1-dependent manner by promoting the recruitment of IQGAP1 to the cell cortex which cooperates with its effector DIAPH1 to locally stabilize microtubules and allow stable insertion of caveolae into the plasma membrane (By similarity). Required for the maintenance of mitotic spindle integrity by promoting phosphorylation of TACC3 by AURKA (PubMed: 18283114). Associates with chromatin and may act as a negative regulator of transcription when located in the nucleus (PubMed: 17420447).

Cellular Location

Cell junction, focal adhesion. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, lamellipodium {ECO:0000250|UniProtKB:055222}. Cytoplasm, myofibril, sarcomere. Cytoplasm Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cell cortex {ECO:0000250|UniProtKB:055222}

Tissue Location

Highly expressed in heart followed by skeletal muscle, pancreas and kidney. Weakly expressed in placenta, lung and liver



Anti-Integrin linked ILK Picoband Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-Integrin linked ILK Picoband Antibody - Images



Western blot analysis of Integrin linked ILK expression in rat lung extract (lane 1), mouse liver extract (lane 2) and HELA whole cell lysates (lane 3). Integrin linked ILK at 55KD was detected using rabbit anti- Integrin linked ILK Antigen Affinity purified polyclonal antibody (Catalog # ABO12634) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-Integrin linked ILK Picoband Antibody - Background

ILK, also known as Integrin-linked kinase, is a serine-threonine protein kinase. Transduction of extracellular matrix signals through integrins influences intracellular and extracellular functions, and appears to require interaction of integrin cytoplasmic domains with cellular proteins. Integrin-linked kinase (ILK) interacts with the cytoplasmic domain of beta-1 integrin. This gene was initially described to encode a serine/ threonine protein kinase with 4 ankyrin-like repeats, which associates with the cytoplasmic domain of beta integrins and acts as a proximal receptor kinase regulating integrin-mediated signal transduction. Multiple alternatively spliced transcript variants encoding the same protein have been found for this gene. Recent results showed that ILK contains 5 ankyrin-like repeats, and that the C-terminal kinase domain is actually a pseudo-kinase with adaptor function.