

ILK1/ILK2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP7651a

Specification

ILK1/ILK2 Antibody (N-term) - Product Information

Application WB, IHC-P,E
Primary Accession O55222

Other Accession <u>Q99|82</u>, <u>Q13418</u>, <u>Q3SWY2</u>, <u>Q9DF58</u>

Reactivity Human

Predicted Bovine, Chicken, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Antigen Region 11-41

ILK1/ILK2 Antibody (N-term) - Additional Information

Gene ID 16202

Other Names

Integrin-linked protein kinase, Ilk

Target/Specificity

This ILK1/ILK2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 11-41 amino acids from the N-terminal region of mouse ILK1/ILK2.

Dilution

WB~~1:1000 IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ILK1/ILK2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ILK1/ILK2 Antibody (N-term) - Protein Information

Name Ilk {ECO:0000312|MGI:MGI:1195267}

Function Scaffold protein which mediates protein-protein interactions during a range of cellular



events including focal adhesion assembly, cell adhesion and cell migration (By similarity). 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 (By similarity). 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 (By similarity). Plays a role with PARVG in promoting the cell adhesion and spreading of leukocytes (By similarity). Acts as an upstream effector of both AKT1/PKB and GSK3 (By similarity). 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 (PubMed: 20951348). Required for the maintenance of mitotic spindle integrity by promoting phosphorylation of TACC3 by AURKA (By similarity). Associates with chromatin and may act as a negative regulator of transcription when located in the nucleus (By similarity).

Cellular Location

Cell junction, focal adhesion. Cell membrane; Peripheral membrane protein; Cytoplasmic side {ECO:0000250|UniProtKB:Q13418}. Cytoplasm, myofibril, sarcomere {ECO:0000250|UniProtKB:Q13418}. Cell projection, lamellipodium. Cytoplasm {ECO:0000250|UniProtKB:Q13418}. Nucleus {ECO:0000250|UniProtKB:Q13418} Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000250|UniProtKB:Q13418}. Cytoplasm, cell cortex {ECO:0000250|UniProtKB:Q13418}

Tissue Location

Highly expressed in lung, heart, kidney, liver, brain, spleen and skeletal muscle. Weakly expressed in testis

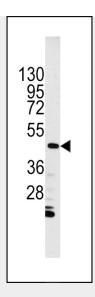
ILK1/ILK2 Antibody (N-term) - Protocols

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

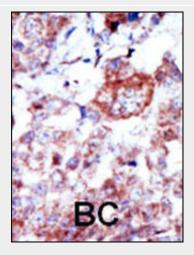
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cvtometv
- Cell Culture

ILK1/ILK2 Antibody (N-term) - Images

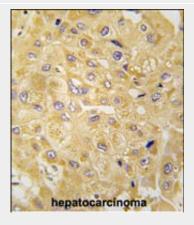




Western blot analysis of anti-ILK1 Pab (Cat. #AP7651a) in HL60 cell lysate. ILK1 (Arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with ILK1/ILK2 Antibody (N-term) (Cat.#AP7651a), which was peroxidase-conjugated to the secondary antibody,



Tel: 858.875.1900 Fax: 858.875.1999

followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

ILK1/ILK2 Antibody (N-term) - Background

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. ILK encodes a predicted 451-amino acid protein, with an apparent molecular weight of 59 kD. The ILK protein is a serine/threonine protein kinase with 4 ankyrin-like repeats. ILK regulates integrin-mediated signal transduction.

ILK1/ILK2 Antibody (N-term) - References

Li, Y., et al., J. Clin. Invest. 112(4):503-516 (2003). Troussard, A.A., et al., J. Biol. Chem. 278(25):22374-22378 (2003). Marotta, A., et al., Br. J. Cancer 88(11):1755-1762 (2003). Cordes, N., et al., Br. J. Cancer 88(9):1470-1479 (2003). Fukuda, T., et al., J. Cell Biol. 160(7):1001-1008 (2003).

ILK1/ILK2 Antibody (N-term) - Citations

- Prognostic significance of epithelial-mesenchymal transition in malignant pleural mesothelioma.
- Carcinoembryonic antigen inhibits anoikis in colorectal carcinoma cells by interfering with TRAIL-R2 (DR5) signaling.