10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ILK1/ILK2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7651a

Product Information

Application	WB, IHC-P, E
Primary Accession	O55222
Other Accession	Q99J82, Q13418, Q3SWY2
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	51373
Antigen Region	11-41

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~~1:100~500 E~~Use at an assay dependent concentration.
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.

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

Background

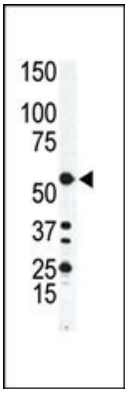
Transduction of extracellular matrix signals through integrins influences intracellular and extracellular functions, and appears to require interaction of integrin cytoplasmic domains with cellular proteins. Integrin-linked kinase (ILK), interacts with the cytoplasmic domain of beta-1 integrin. ILK encodes 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.

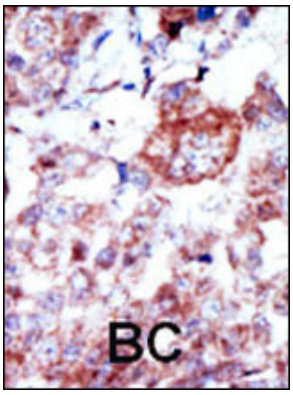
References

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).

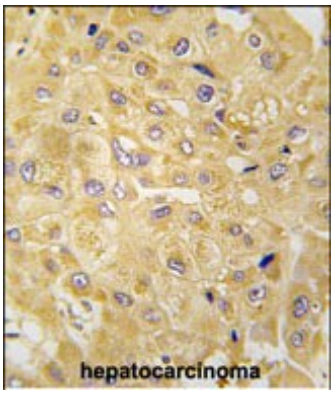
Images

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

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.