

ILK Antibody

Rabbit mAb Catalog # AP90716

Product Information

Application WB, IHC, IF, FC, ICC, IP, IHF

Primary Accession <u>Q13418</u>

Reactivity Rat, Human, Mouse

Clonality Monoclonal

Other Names ILK; DKFZp686F1765; P59; ILK1; Integrin linked protein kinas;

IsotypeRabbit IgGHostRabbitCalculated MW51419

Additional Information

Dilution WB 1:1000~1:5000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 FC 1:50

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human ILK

Description Integrin-linked kinases (ILKs) couple integrins and growth factors to

downstream pathways involved in cell survival, cell cycle control, cell-cell adhesion and cell motility. ILK functions as a scaffold bridging the extracellular matrix (ECM) and growth factor receptors to the actin

cytoskeleton through interactions with integrin, PINCH (which links ILK to the

RTKs via Nck2), CH-ILKBP and affixin.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

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: <u>30367047</u>). 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: <u>20005845</u>).

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).

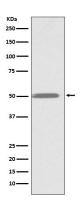
Cellular Location

Cell junction, focal adhesion. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, lamellipodium {ECO:0000250|UniProtKB:O55222}. Cytoplasm, myofibril, sarcomere. Cytoplasm Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cell cortex {ECO:0000250|UniProtKB:O55222}

Tissue Location

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

Images



Western blot analysis of ILK expression in K562 cell lysate.

Image not found: 202311/AP90716-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human stomach, using ILK Antibody.

Image not found: 202311/AP90716-IF.jpg

Immunofluorescent analysis of 293 cells, using ILK Antibody.

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