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KD-Validated Anti-Integrin Linked Kinase Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1314

Specification

KD-Validated Anti-Integrin Linked Kinase Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q13418
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 51 kDa; observed, 48 kDa KDa**
Gene Name	**ILK**
Aliases	**ILK; Integrin Linked Kinase; 59 KDa Serine/Threonine-Protein Kinase; Integrin-Linked Protein Kinase; Beta-Integrin-Linked Kinase; P59ILK; ILK-1; ILK-2; Epididymis Secretory Protein Li 28; Integrin-Linked Kinase-2; Integrin-Linked Kinase; EC 2.7.11.1; HEL-S-28; ILK1; ILK2; P59**
Immunogen	**A synthesized peptide derived from human ILK**

KD-Validated Anti-Integrin Linked Kinase Rabbit Monoclonal Antibody - Additional Information

Gene ID	**3611**

Other Names
Scaffold protein ILK, ILK-1, ILK-2, Inactive integrin-linked kinase, p59ILK, ILK (HGNC:6040)

KD-Validated Anti-Integrin Linked Kinase Rabbit Monoclonal 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: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

KD-Validated Anti-Integrin Linked Kinase Rabbit Monoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Integrin Linked Kinase Rabbit Monoclonal Antibody - Images

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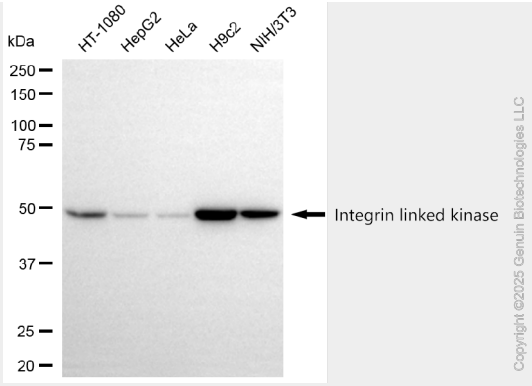
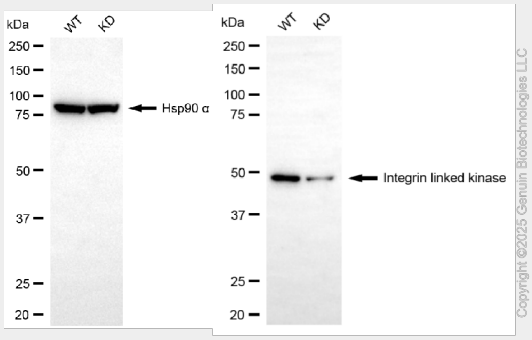
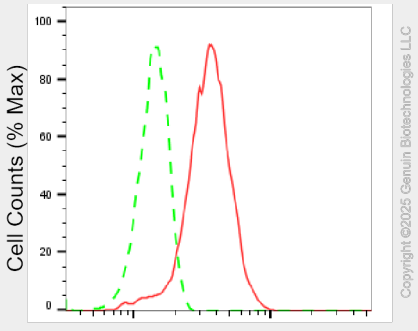


Western blotting analysis using anti-integrin linked kinase antibody (Cat#AGI1314). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-integrin linked kinase antibody (Cat#AGI1314, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

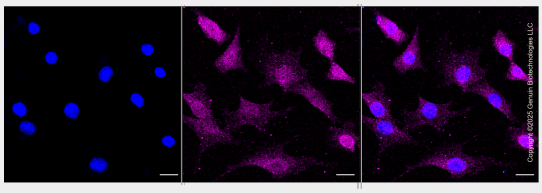


Western blotting analysis using anti-integrin linked kinase antibody (Cat#AGI1314). Integrin linked kinase expression in wild-type (WT) and integrin linked kinase (DAG1) knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-integrin linked kinase antibody (Cat#AGI1314, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Integrin linked kinase-Alexa Fluor® 647

Flow cytometric analysis of Integrin linked kinase expression in C2C12 cells using anti-Integrin linked kinase antibody (Cat#AGI1314, 1:2,000). Green, isotype control; red, Integrin linked kinase.



Immunocytochemical staining of C2C12 cells with anti-Integrin linked kinase antibody

(Cat#AGI1314, 1:1,000). Nuclei were stained blue with DAPI; Integrin linked kinase was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar, 20 µm.