



## Rabbit Anti-ILK-1 antibody

SL0317R

<b>Product Name:</b>	ILK-1
<b>Chinese Name:</b>	整合素连接激酶-1抗体
<b>Alias:</b>	59 kDa serine/threonine protein kinase; 59 kDa serine/threonine-protein kinase; ILK-2; ILK_HUMAN; Integrin linked Kinase; Integrin-linked protein kinase; DKFZp686F1765; EC 2.7.11.1; ILK 1; ILK 2; ILK; ILK1; ILK2; Integrin linked Kinase 2; Integrin linked protein kinase; p59; p59ILK.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Chicken,Dog,Cow,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	50kDa
<b>Cellular localization:</b>	cytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human ILK-1:301-400/452
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	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 kDa. The ILK protein is a serine/threonine protein kinase with 4 ankyrin like repeats. ILK regulates integrin mediated signal transduction.

The ILK protein is important in different biological pathways such as cell adhesion, anchorage-dependent cell cycle progression, oncogenic transformation, and growth factor signaling. The kinase activity of ILK is low in non-activated cells; its activity is stimulated by cell-ECM interactions and by certain growth factors. 3 Negative regulation of ILK is mediated by two phosphatases: PTEN, a tumor suppressor lipid sphatase, and ILKAP, a PP2C protein phosphatase. In tumor cells that do not express PTEN protein, ILK is constitutively active.

**Function:**

Receptor-proximal protein kinase regulating integrin-mediated signal transduction. May act as a mediator of inside-out integrin signaling. Focal adhesion protein part of the complex ILK-PINCH. This complex is considered to be one of the convergence points of integrin- and growth factor-signaling pathway. Could be implicated in mediating cell architecture, adhesion to integrin substrates and anchorage-dependent growth in epithelial cells. Phosphorylates beta-1 and beta-3 integrin subunit on serine and threonine residues, but also AKT1 and GSK3B.

**Subunit:**

Interacts with cytoplasmic domain of beta 1 subunit of integrin. Could also interact with beta 2, beta 3 and/or beta 5 subunit of integrin. Interacts (via ANK repeats) with LIMS1 and LIMS2. Interacts with paryvins and probably TGFB11. Interacts (via ANK repeats) with EPHA1 (via SAM domain); stimulated by EFNA1 but independent of the kinase activity of EPHA1.

**Subcellular Location:**

Cell junction, focal adhesion. Cell membrane; Peripheral membrane protein; Cytoplasmic side.

**Tissue Specificity:**

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

**Post-translational modifications:**

Autophosphorylated on serine residues.

**Similarity:**

Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. Contains 5 ANK repeats. Contains 1 protein kinase domain.

**SWISS:**

Q13418

**Gene ID:**  
3611

**Database links:**

[Entrez Gene: 3611](#)Human

[Entrez Gene: 16202](#)Mouse

[Entrez Gene: 170922](#)Rat

[Omim: 602366](#)Human

[SwissProt: Q13418](#)Human

[SwissProt: O55222](#)Mouse

[SwissProt: Q99J82](#)Rat

[Unigene: 5158](#)Human

[Unigene: 706355](#)Human

[Unigene: 274846](#)Mouse

[Unigene: 95042](#)Rat

**Important Note:**

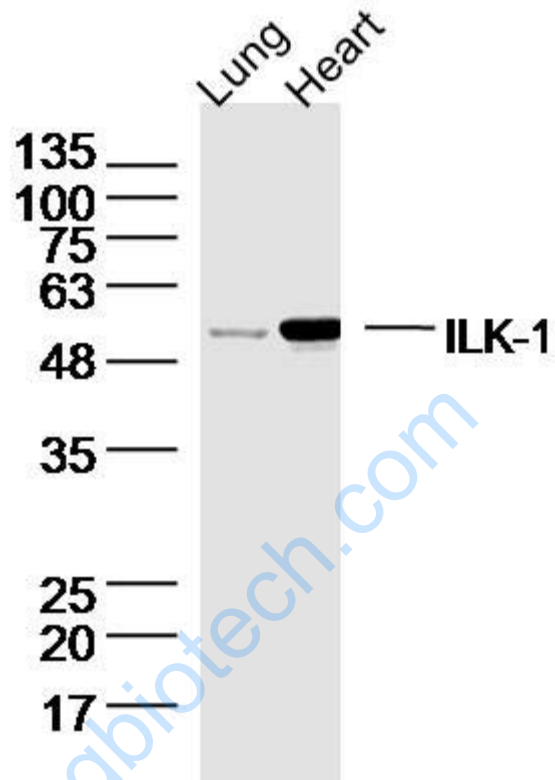
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**ILK**

是一种新发现的Ser/Thr蛋白激酶。ILK能够通过整合素 $\beta$ 1亚单位的结合介导细胞与胞外基质的连接,以依赖于PI3K的方式激活,并通过磷酸化下游底物PKB/AKT, GSK3等胞外信号的一项下游传递,对细胞的生长,分化,迁移等进行调控。由于ILK在胞内外信号传导中起着重要的作用。并且抑制ILK的活性能够导致细胞周期的停滞和细胞程序性死亡的启动,使其成为Tumour治疗和Tumour药物的理想靶位点。

该蛋白也表达与肾小球系膜细胞,正常足细胞ILK的高水平表达对足细胞功能起着重要的生理作用。DN患者ILK表达明显增加,暴露于高血糖的肾小球膜细胞的ILK水平明显升高,ILK与整合素和其他连接蛋白都受到高血糖的调节,并且促进DN患者肾小球基质的沉积。

Picture:



Sample:

Lung (Mouse) Lysate at 40 ug

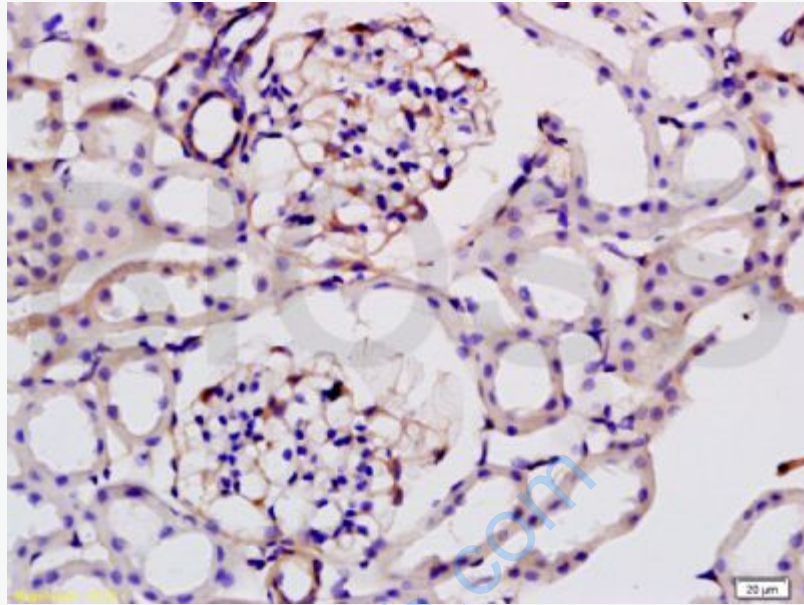
Heart (Mouse) Lysate at 40 ug

Primary: Anti-ILK-1 (SL0317R) at 1/300 dilution

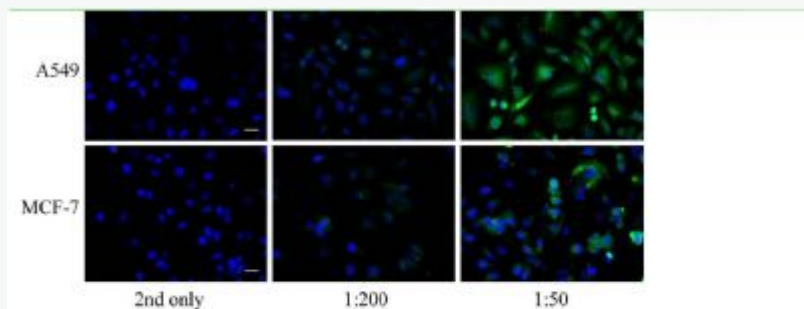
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 50 kD

Observed band size: 50 kD



Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
 Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block  
 endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer  
 (normal goat serum,C-0005) at 37°C for 20 min;  
 Incubation: Anti-ILK-1 Polyclonal Antibody, Unconjugated(SL0317R) 1:200,  
 overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and  
 DAB(C-0010) staining



**Figure 1. IF validation** A549 cells and MCF-7 were stained with rabbit polyclonal antibody against ILK-1 with dilution at 1:200 and 1:50. 2nd antibody without primary antibody was used as control included here. Fluorescent signals were detected with 1:50 primary antibody dilution in MCF-7 cells it shows prominent cell membrane/focal adhesion staining than cytoplasmic staining. However the fluorescent signal in A549 is shows prominent cytoplasmic staining than cell membrane staining. Scale bar= 20 μm.

