SunLong Biotech Co.,LTD
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Rabbit Anti-ILK-1 antibody

SL0317R

Product Name	ILK-1
Chinese Name	整合素连接激酶-1 抗体
Alias	59 kDa serine/threonine protein kinase; 59 kDa serine/threonine-protein kinase; ILK-2; ILK_HU Kinase; Integrin-linked protein kinase; DKFZp686F1765; EC 2.7.11.1; ILK 1; ILK 2; ILK; ILK1 Kinase 2; Integrin linked protein kinase; p59; p59ILK.
Research Area	Tumour Neurobiology Signal transduction
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat, (predicted: Chicken, Dog, Cow,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 （Paraffin sections need a not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	50kDa
Cellular localization	cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human ILK-1: 301-400/452
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or d
PubMed	PubMed
Product Detail	Transduction of extracellular matrix signals through integrins influences intracellular and extrac appears to require interaction of integrin cytoplasmic domains with cellular proteins. Integrin lin

interacts with the cytoplasmic domain of beta 1 Integrin. ILK encodes a predicted 451 amino aci
apparent molecular weight of 59 kDa. The ILK protein is a serine/threonine protein kinase with
ILK regulates integrin mediated signal transduction.
The ILK protein is important in different biological pathways such as cell adhesion, anchorage-d
progression, oncogenic transformation, and growth factor signaling. The kinase activity of ILK i
cells; its activity is stimulated by cell-ECM interactions and by certain growth factors. 3 Negativ
mediated by two phosphatases: PTEN, a tumor suppressor lipid sphatase, and ILKAP, a PP2C pr
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
integrin signaling. Focal adhesion protein part of the complex ILK-PINCH. This complex is cons
convergence points of integrin- and growth factor-signaling pathway. Could be implicated in med
adhesion to integrin substrates and anchorage-dependent growth in epithelial cells. Phosphorylat
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 interacts with beta 2,
subunit of integrin. Interacts (via ANK repeats) with LIMS1 and LIMS2. Interacts with parvins a
Interacts (via ANK repeats) with EPHA1 (via SAM domain); stimulated by EFNA1 but indepen
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 i
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

ILK 是一种新发现的 Ser/Thr 蛋白激酶。ILK 能够通过与整合素 β1 亚单位的结合介导细胞
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
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 I
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
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
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
高血糖的调节,并且促进 DN 患者肾小球基质的沉积。

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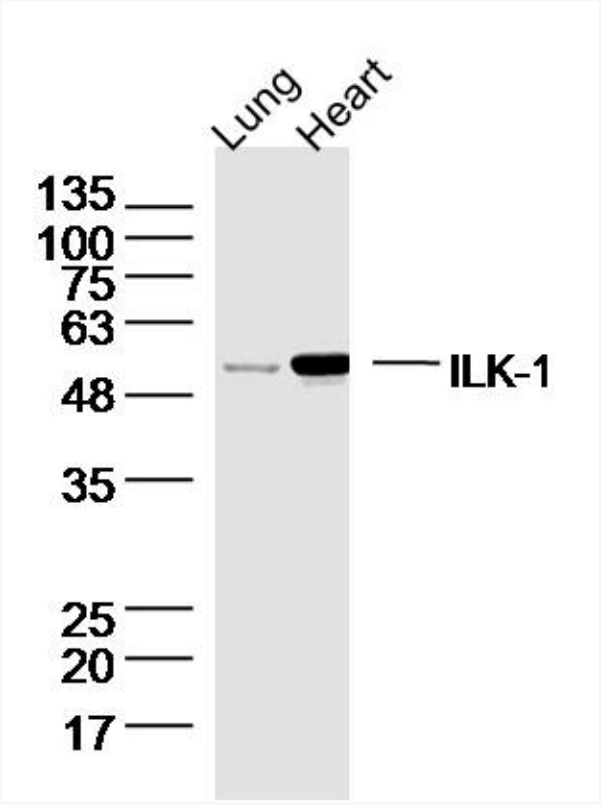
Product Picture



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

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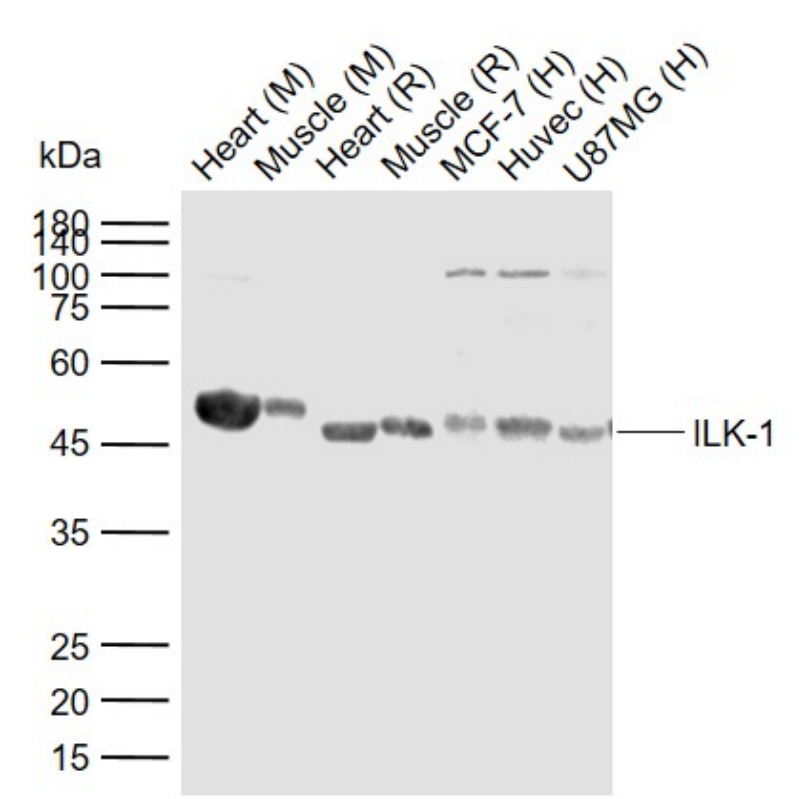


Sample:

Lane 1: Mouse Heart tissue lysates

Lane 2: Mouse Muscle tissue lysates

Lane 3: Rat Heart tissue lysates

Lane 4: Rat Muscle tissue lysates

Lane 5: Human MCF-7 cell lysates

Lane 6: Human Huvec cell lysates

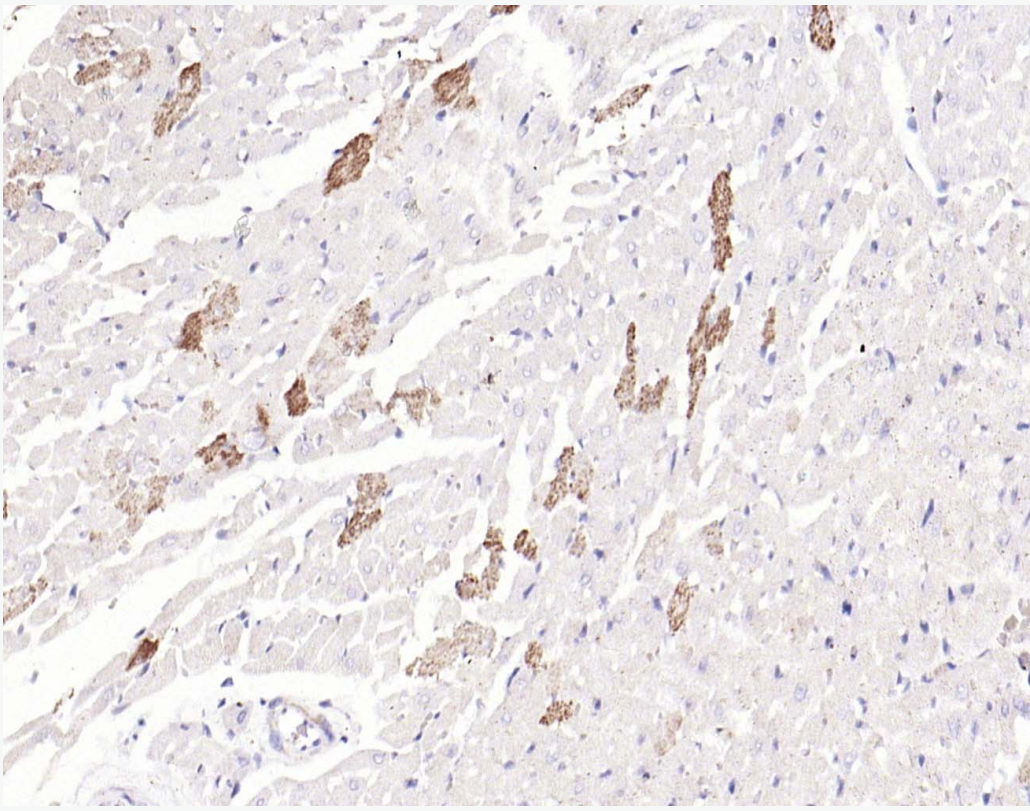
Lane 7: Human U87MG cell lysates

Primary: Anti-ILK-1 (SL0317R) at 1/1000 dilution

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

Predicted band size: 50 kDa

Observed band size: 50 kDa



Paraformaldehyde-fixed, paraffin embedded (rat heart); Antigen retrieval by boiling in sodium
for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking
serum) at 37°C for 30min; Antibody incubation with (ILK-1) Polyclonal Antibody, Unconjug
1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructio

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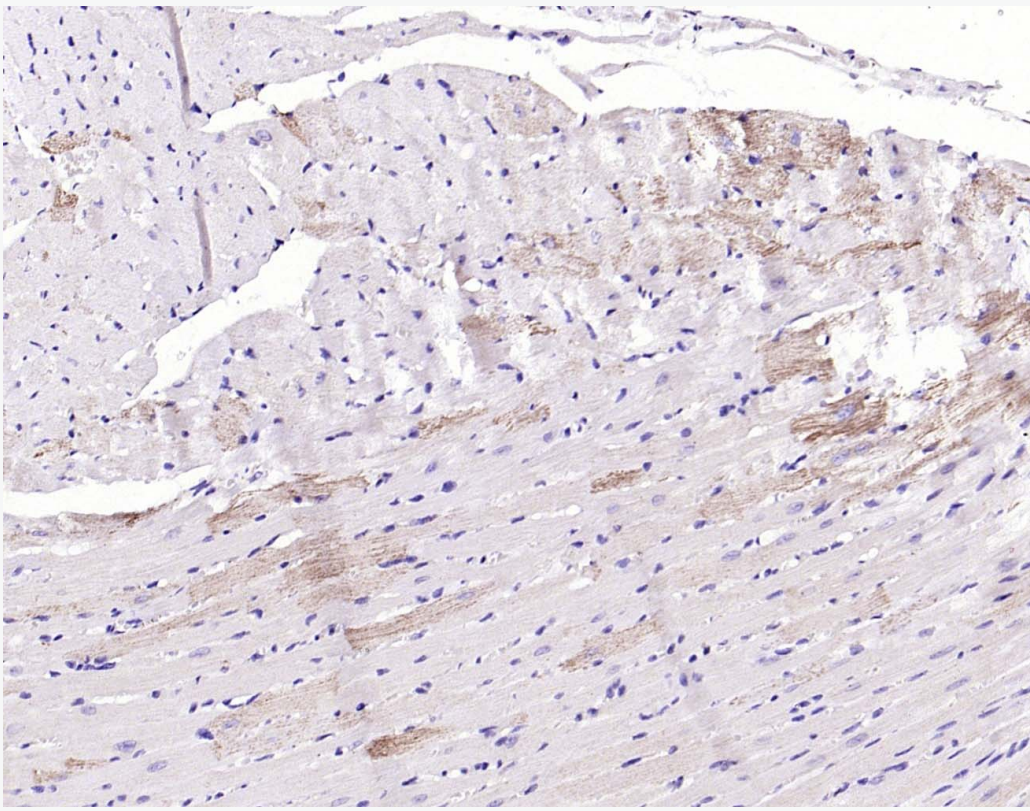

Paraformaldehyde-fixed, paraffin embedded (mouse heart); Antigen retrieval by boiling in soc
(pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blo
goat serum) at 37°C for 30min; Antibody incubation with (ILK-1) Polyclonal Antibody, Unco
at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instru
staining.

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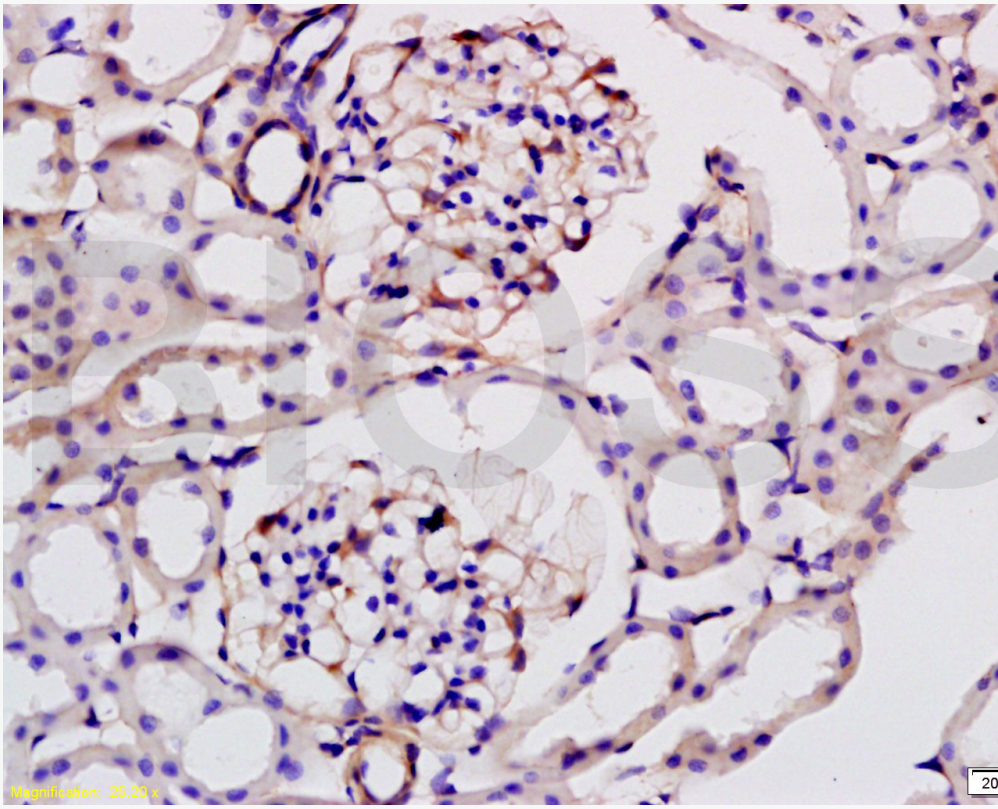

Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous

Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 mi

Incubation: Anti-ILK-1 Polyclonal Antibody, Unconjugated(SL0317R) 1:200, overnight at 4°

conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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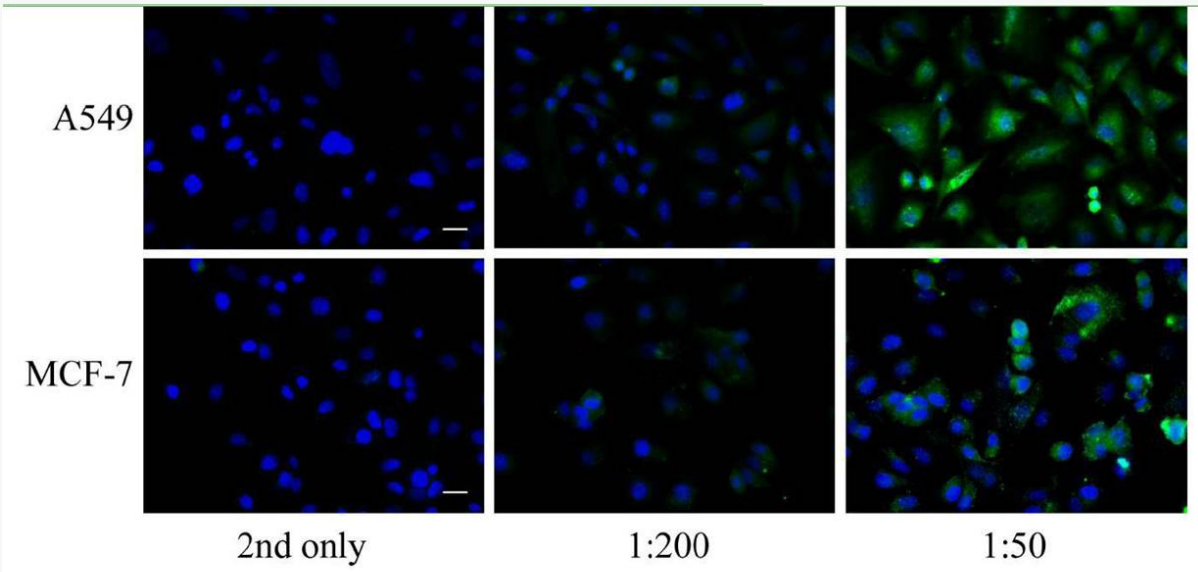

Figure 1. IF validation A549 cells and MCF-7 were stained with rabbit polyclonal antibod
dilution at 1:200 and 1:50. 2nd antibody without primary antibody was used as con
Fluorescent signals were detected with 1:50 primary antibody dilution in MCF-7 cells it sh
membrane/focal adhesion staining than cytoplasmic staining. However the fluorescent sign
prominent cytoplasmic staining than cell membrane staining. Scale bar= 20 μm.