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Protein serine/Threonine kinase antibodies

Anti-Integrin-linked protein kinase 1/2 (ILK1/2) antibodies (Cat # ILK-101AP)

Other nomenclature:

The cellular interactions with extracellular matrix regulate cell shape, growth, survival, morphology and differentiation by regulation various genes through integrin-mediated signal transduction. Integrin-linked protein kinase (ILK) is a ubiquitously expressed protein kinase that has emerged as one of the points of convergence between integrin- and growth factor-signaling pathways. The ILK a member of this pathway and interacts with beta 1-integrin cytoplasmic domain. ILK 1 is a 59 kDa serine/threonine protein kinase containing 4 ankyrin-like repeat. The ILK1 phosphorylates beta 1-integrin cytoplasmic domain and co-immunoprecipitate with beta 1-integrin form cell lysates (1). Over expression of ILK1 disrupted epithelial cell architecture and inhibited the cells to adhere to integrin substrates subsequently reducing the anchorage-independent growth (1). The ILK1 is a receptor-proximal protein kinase regulating integrin-mediated signal transduction cascade. ILK1 is considered to be one of the convergence point of integrin- and growth factor-signaling pathway and is involved in maintenance of cell architecture, adhesion to integrin substrates and anchorage-dependent growth in epithelial cells.

AKT1 phosphorylates beta 1 and beta 3 integrin subunit on serine and threonine residues and also the AKT1 and GSK3B proteins. ILK1 is stimulated rapidly but transiently by both cell fibronectin interactions, as well as by insulin, in a PI3-K-dependent manner, likely via the binding of PtdIns(3,4,5)P3 with a PH-like domain of ILK1. ILK1 is highly expressed in heart followed by skeletal muscle, pancreas and kidney and is weakly expressed in placenta, lung and liver. ILK1/2 undergoes autophosphorylation on serine residue. ILK1 is considered to be one of the convergence points of integrin- and growth factor-signaling pathway and is involved in maintenance of cell architecture, adhesion to integrin substrates and anchorage-dependent growth in epithelial cells. The growth factor modulation of expression of ILK depends upon the internalization/recycling of the growth factor receptors and stimulation of PI3K pathways. These steps have direct implications with regards to cell adhesion and tumorigenesis.

The Anti-ILK1/2-selective antibodies were generated against a conserved sequence near the C-terminal that is unique to ILK1/2 protein. Affinity purified anti-ILK1/2 antibodies labels a 59-60 kDa ILK1/2 band in the PC-ILK1/2 western blot positive control and in several rat tissues including heart, brain and skeletal muscle. Anti-ILK1/2-selective antibodies are also available in affinity-purified form for confocal, Western blotting and immunocytochemical analyses. *FabGennix Inc.* will also conjugate antibodies with fluorescent probes upon request at extra charge. *FabGennix, Inc.*, will also provide Western blot positive controls for ILK-101AP antibodies in ready-to-use buffer for easy identification of respective proteins. Limited quantities of antigenic peptides are also available. Please inquire for their availability before ordering.

Catalog #	Host Species	Nature	Cross reactivity	Quantity	Price
ILK-101AP	Rabbit	Affinity purified ILK1/2 antibodies	R, M, H	100 µl	235
P-ILK1/2	n/a	Antigenic blocking peptide for ILK-101AP	R, M, H	100 µg	145
PC-ILK	n/a	Western blot positive ocontrol for ILK 1/2	n/a	250 ug	165

R = rat; M = mouse; H = human; C = chicken; monk = monkey ; * not all variants are labeled equally

Immunogen: C-terminal synthetic peptide from ILK1/2 protein (KRP KFD MIV PIL EKM QDK). The peptide was post-synthetically modified to achieve the desired antigenicity before used as antigen.

Concentration: ILK-101AP IgG concentration 0.66-0.87 mg/ml.

Applications: Antibody ILK-101 is ideal for WB applications, use in IHC and IMM is not determined. The dilutions for this antibody is for reference only, investigators are expected to determine the optimal conditions for specific assay. WB; 1:500; IMM & i.p pull-down assays:> n.d

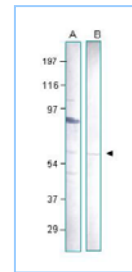
Reactivity: This antibody detects a band at 59- 60kDa ILK1/2 protein in WB blot positive controls and in several tissues.

Protocols: Standard protocol for various applications (WB, IMM and IHC) of this antibody can be obtained pon request form technical services is provided with the product specification sheet, however, *FabGennix Int. Inc.*

Form/Storage: The antiserum is supplied in antibody stabilization buffer with 0.02% sodium azide. For long-term storage of antibodies, store at -20°C. *FabGennix Int. Inc.* does not recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer (Cat # DilUbuffer). Working solutions of antibodies in DilUbuffer should be filtered through 0.45µ filter after every use for long-term storage.

References:

- Hannigan GE, Leung-Hagesteijn C, Fitz-Gibbon L, Coppolino MG, Radeva G, Filmus J, Bell JC, Dedhar S. Regulation of cell adhesion and anchorage-dependent growth by a new beta 1-integrin-linked protein kinase. *Nature*. 1996 Jan 4;379(6560):91-6.



Western blot of ILK-100P (1:500, A) & ILK-101AP (1:500, B) in diluBuffer with PC-ILK1 sample. MWM are on the left.

Note: Now you can recycle your western blots (nitrocellulose, supported membranes and PVDF membranes) by using our StripObuffer (Cat # FGI-1989) followed by diluObuffer (Cat # FGI-1963) for blocking. Each stripping is guaranteed to give better signal (up to 8 stripping). No strong pungent smell of reducing agents or heating required, strips membranes clean at room temperature.

*For users who may require large amounts of ILK-101P, please enquire about bulk material discounts.
This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

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