

ILK (H-300): sc-13075

BACKGROUND

Integrins are heterodimers composed of non-covalently associated transmembrane α and β subunits. The 16 α and 8 β subunits heterodimerize to produce more than 20 different receptors. Most integrin receptors bind to ligands that are components of the extracellular matrix. Certain integrins can also bind to soluble ligands such as fibrinogen, or to counterreceptors on adjacent cells, such as the intracellular adhesion molecules (ICAMs), leading to aggregation of cells. In addition to mediating cell adhesion and cytoskeletal organization, integrins function as signaling receptors. Signals transduced by integrins play a role in many biological processes, including cell growth, differentiation, migration and apoptosis. ILK (integrin-linked kinase) was identified as a serine/threonine kinase that phosphorylates $\beta 1$ and $\beta 3$ integrins. ILK expression has been shown to be reduced in response to fibronectin, a known integrin ligand. Overexpression of ILK was shown to upregulate the fibronectin matrix assembly in epithelial cells, indicating a potential role for ILK in cell growth, cell survival and tumorigenesis.

CHROMOSOMAL LOCATION

Genetic locus: ILK (human) mapping to 11p15.4; Ilk (mouse) mapping to 7 E3.

SOURCE

ILK (H-300) is a rabbit polyclonal antibody raised against amino acids 155-452 of ILK-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ILK (H-300) is recommended for detection of ILK-1 and ILK-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ILK (H-300) is also recommended for detection of ILK-1 and ILK-2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ILK siRNA (h): sc-35666, ILK siRNA (m): sc-35667, ILK shRNA Plasmid (h): sc-35666-SH, ILK shRNA Plasmid (m): sc-35667-SH, ILK shRNA (h) Lentiviral Particles: sc-35666-V and ILK shRNA (m) Lentiviral Particles: sc-35667-V.

Molecular Weight of ILK: 59 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or rat heart extract: sc-2393.

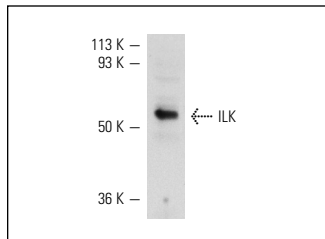
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

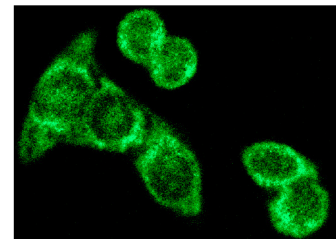
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



ILK (H-300): sc-13075. Western blot analysis of ILK expression in HeLa whole cell lysate.



ILK (H-300): sc-13075. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Kuo, W.H., et al. 2007. The ING1 β tumor suppressor facilitates nucleotide excision repair by promoting chromatin accessibility to XPA. *Exp. Cell Res.* 313: 1628-1638.
2. Dougherty, G.W., et al. 2008. The Rsu-1-PINCH1-ILK complex is regulated by Ras activation in tumor cells. *Eur. J. Cell Biol.* 87: 721-734.
3. Zhu, X.G., et al. 2010. Thyroid hormone receptors are tumor suppressors in a mouse model of metastatic follicular thyroid carcinoma. *Oncogene* 29: 1909-1919.
4. Dutta, A., et al. 2010. Culture of K562 human myeloid leukemia cells in presence of fibronectin expresses and secretes MMP-9 in serum-free culture medium. *Int. J. Clin. Exp. Pathol.* 3: 288-302.
5. Huang, C.Y., et al. 2011. Nephroblastoma overexpressed gene (NOV) enhances cell motility and COX-2 upregulation of human osteosarcoma involves $\alpha V\beta 5$ integrin, ILK and AP-1-dependent pathways. *Biochem. Pharmacol.* 81: 577-585.
6. Tan, T.W., et al. 2012. CCN3 increases BMP-4 expression and bone mineralization in osteoblasts. *J. Cell. Physiol.* 227: 2531-2541.
7. Chen, P.C., et al. 2012. CCN3 increases cell motility and ICAM-1 expression in prostate cancer cells. *Carcinogenesis* 33: 937-945.
8. Niu, H., et al. 2014. Benazepril affects integrin-linked kinase and smooth muscle α -actin expression in diabetic rat glomerulus and cultured mesangial cells. *BMC Nephrol.* 15: 135.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **ILK (65.1): sc-20019** or **ILK (E-2): sc-137221**, our highly recommended monoclonal alternatives to ILK (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **ILK (65.1): sc-20019**.