

ILK (h3): 293T Lysate: sc-170660

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.

REFERENCES

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4. Juliano, R. 1996. Cooperation between soluble factors and Integrin-mediated cell anchorage in the control of cell growth and differentiation. *Bioessays* 18: 911-917.
5. Hannigan, G.E., et al. 1996. Regulation of cell adhesion and anchorage-dependent growth by a new $\beta 1$ -Integrin-linked protein kinase. *Nature* 379: 91-96.
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7. Wu, C., et al. 1998. Integrin-linked protein kinase regulates Fibronectin matrix assembly, E-cadherin expression, and tumorigenicity. *J. Biol. Chem.* 273: 528-536.
8. Liu, X.C., et al. 2007. Role of ERK 1/2 and PI 3-k in the regulation of CTGF-induced ILK expression in HK-2 cells. *Clin. Chim. Acta* 382: 89-94.
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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: ILK (human) mapping to 11p15.4.

PRODUCT

ILK (h3): 293T Lysate represents a lysate of human ILK transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

ILK (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive ILK antibodies. Recommended use: 10-20 μ l per lane.

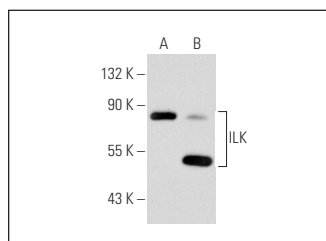
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ILK (65.1): sc-20019 is recommended as a positive control antibody for Western Blot analysis of enhanced human ILK expression in ILK transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



ILK (65.1): sc-20019. Western blot analysis of ILK expression in non-transfected: sc-117752 (A) and human ILK transfected: sc-170660 (B) 293T whole cell lysates.

RESEARCH USE

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