

ILK (C-19): sc-7516

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, and 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 β 1 and β 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 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 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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.

Blocking peptide available for competition studies, sc-7516 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ILK (C-19) 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 (C-19) 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: NIH/3T3 whole cell lysate: sc-2210, rat heart extract: sc-2393 or mouse heart extract: sc-2254.

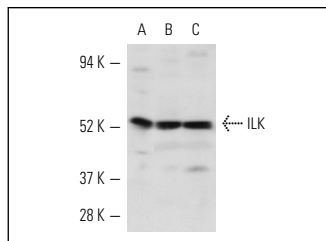
RESEARCH USE

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

STORAGE

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

DATA



ILK (C-19): sc-7516. Western blot analysis of ILK expression in NIH/3T3 whole cell lysate (A) and rat heart (B) and mouse heart (C) tissue extracts.

SELECT PRODUCT CITATIONS

- Nikolopoulos, S., et al. 2001. Integrin-linked kinase (ILK) binding to Paxillin LD1 motif regulates ILK localization to focal adhesions. *J. Biol. Chem.* 276: 23499-23505.
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- Tucker, K.L., et al. 2008. A dual role for integrin linked kinase in platelets: regulating integrin function and α -granule secretion. *Blood* 112: 4523-4531.
- Takeuchi, J., et al. 2008. Expression of β -catenin and integrin-linked kinase in the mouse sciatic nerve. *Kobe J. Med. Sci.* 54: E217-E226.
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