SANTA CRUZ BIOTECHNOLOGY, INC.

Hic-5 (P-19): sc-30971

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The Power to Question

BACKGROUND

In addition to paxillin, zysin, LPP, ajuba and trip-6, hydrogen-peroxide inducible clone 5 (HIC-5) is a member of the LIM family. HIC-5 contains four LIM motifs and seven zinc finger domains. In the cell, HIC-5 localizes to the nuclear matrix and focal adhesion complexes where the LIM domains mediate the interactions of HIC-5 with focal adhesions. Known also as transforming factor β 1 induced transcript 1, HIC-5 shares extensive homology with the structural protein paxillin, which is involved in the regulation of focal adhesion dynamics. HIC-5 inhibits integrin-mediated cell spreading on fibronectin by out competing paxillin for focal adhesion kinase and thereby preventing downstream signal transduction. Increased expression of HIC-5 leads to cellular senescence in developing fibroblasts. During myogenesis, expression of HIC-5 blocks differentiation and induces apoptosis of developing myoblasts. The gene encoding human HIC-5 maps to chromosome 16p11.2.

REFERENCES

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3. Shibanuma, M., et al. 1997. Induction of senescence-like phenotypes by forced expression of Hic-5, which encodes a novel LIM motif protein, in immortalized human fibroblasts. Mol. Cell. Biol. 17: 1224-1235.
4. Fujita, H., et al. 1998. Interaction of Hic-5, a senescence-related protein, with focal adhesion kinase. J. Biol. Chem. 273: 26516-26521.
5. Matsuya, M., et al. 1998. Cell adhesion kinase forms a complex with a new member, Hic-5, of proteins localized at focal adhesions. J. Biol. Chem. 273: 1003-1014.
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7. Hu, Y., et al. 1999. Lepidopteran DALP, and its mammalian ortholog Hic-5, function as negative regulators of muscle differentiation. Proc. Natl. Acad. Sci. USA 96: 10218-10223.
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CHROMOSOMAL LOCATION

Genetic locus: TGFB1I1 (human) mapping to 16p11.2; Tgfb1i1 (mouse) mapping to 7 F3.

SOURCE

Hic-5 (P-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Hic-5 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-30971 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Hic-5 (P-19) is recommended for detection of Hic-5 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for Hic-5 siRNA (h): sc-37685, Hic-5 siRNA (m): sc-37686, Hic-5 shRNA Plasmid (h): sc-37685-SH, Hic-5 shRNA Plasmid (m): sc-37686-SH, Hic-5 shRNA (h) Lentiviral Particles: sc-37685-V and Hic-5 shRNA (m) Lentiviral Particles: sc-37686-V.

Molecular Weight of Hic-5: 55 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **Hic-5 (C-6): sc-271353** or **Hic-5 (F-6): sc-137051**, our highly recommended monoclonal alternatives to Hic-5 (P-19).