

Hic-5 (C-6): sc-271353

BACKGROUND

In addition to paxillin, zysyn, 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

- Shibanuma, M., et al. 1993. Cloning from a mouse osteoblastic cell line of a set of transforming-growth-factor- β -1-regulated genes, one of which seems to encode a follistatin-related polypeptide. *Eur. J. Biochem.* 217: 13-19.
- Shibanuma, M., et al. 1994. Characterization of the TGF β 1-inducible Hic-5 gene that encodes a putative novel zinc finger protein and its possible involvement in cellular senescence. *J. Biol. Chem.* 269: 26767-26774.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: TGFBI1 (human) mapping to 16p11.2; Tgfb1i1 (mouse) mapping to 7 F3.

SOURCE

Hic-5 (C-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 409-434 near the C-terminus of Hic-5 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-271353 X, 200 μ g/0.1 ml.

Hic-5 (C-6) is available conjugated to agarose (sc-271353 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271353 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271353 PE), fluorescein (sc-271353 FITC), Alexa Fluor® 488 (sc-271353 AF488), Alexa Fluor® 546 (sc-271353 AF546), Alexa Fluor® 594 (sc-271353 AF594) or Alexa Fluor® 647 (sc-271353 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271353 AF680) or Alexa Fluor® 790 (sc-271353 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271353 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Hic-5 (C-6) is recommended for detection of Hic-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Hic-5 (C-6) is also recommended for detection of Hic-5 in additional species, including equine, canine and bovine.

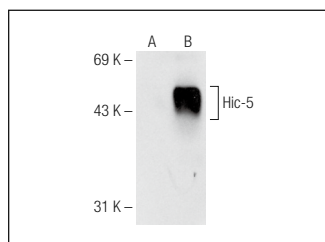
Suitable for use as control antibody for Hic-5 siRNA (h): sc-37685, Hic-5 siRNA (m): sc-37686, Hic-5 shRNA Plasmid (h): sc-37685-SH, Hic-5 shRNA Plasmid (m): sc-37686-SH, Hic-5 shRNA (h) Lentiviral Particles: sc-37685-V and Hic-5 shRNA (m) Lentiviral Particles: sc-37686-V.

Hic-5 (C-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

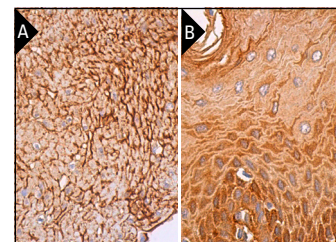
Molecular Weight of Hic-5: 55 kDa.

Positive Controls: Hic-5 (m): 293T Lysate: sc-126953 or HeLa whole cell lysate: sc-2200.

DATA



Hic-5 (C-6): sc-271353. Western blot analysis of Hic-5 expression in non transfected: sc-117752 (A) and mouse Hic-5 transfected: sc-126953 (B) 293T whole cell lysates.



Hic-5 (C-6): sc-271353. Immunoperoxidase staining of formalin fixed, paraffin-embedded human smooth muscle tissue showing membrane and cytoplasmic staining of smooth muscle cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing nuclear and cytoplasmic staining of squamous epithelial cells (B).

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 for detailed protocols and support products.

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