Technical Data Sheet

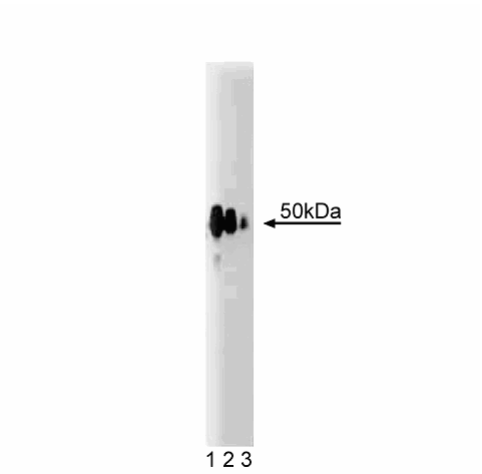
Purified Mouse Anti- Hic5

Product Information

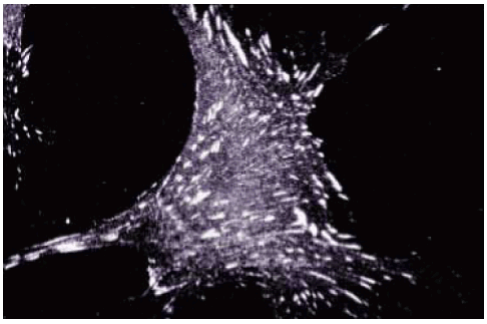
Material Number:	**611164**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	34/Hic-5
Immunogen:	Mouse Hic-5 aa. 73-186
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse, Human, Dog
Target MW:	50 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Focal adhesions are cell structures terminal to the actin-stress fiber bundles. They attach cultured cells to their substratum or extracellular matrix. These adhesions occur through the integrin receptor molecules which link cytoskeletal proteins and extracellular matrix. The intracellular adhesion is composed of a number of proteins such as paxillin, VASP, vinculin, and the focal-adhesion kinases FAK and PYK2/CAKβ. Hic-5, also described as hydrogen peroxide inducible-mRNA, is a focal adhesion protein that binds to FAK and PYK2. It is ubiquitously expressed with the highest levels found in lung, spleen, and heart. Induction of Hic-5 is accomplished by hydrogen peroxide or TGFβ1 and is repressed in K-ras transformed cells. Like paxillin, Hic-5 is tyrosine phosphorylated in Src-transformed cells and is highly similar to paxillin in its primary structure. Both proteins contain LIM domains and LD motifs. In addition, Hic-5 localizes to focal adhesions and co-immunoprecipitates with PYK2/CAKβ in vivo. Thus, Hic-5 may be a substrate for CAKβ and play a role in signal transduction during proliferation, cell motility, and adhesion.



Western blot analysis of Hic-5 on a rat lung lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti- Hic-5 antibody.*



Immunofluorescence staining of human fibroblasts.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

BD Biosciences

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Jia Y, Ransom RF, Shibanuma M, Liu C, Welsh MJ, Smoyer WE. Identification and characterization of hic-5/ARA55 as an hsp27 binding protein. *J Biol Chem.* 2001; 276(43):39911-39918.(Biology: Immunoprecipitation, Western blot)

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Shibanuma M, Mashimo J, Kuroki T, Nose K. Characterization of the TGF beta 1-inducible hic-5 gene that encodes a putative novel zinc finger protein and its possible involvement in cellular senescence. *J Biol Chem.* 1994; 269(43):26767-26774.(Biology)

Wang X, Yang Y, Guo X, et al. Suppression of androgen receptor transactivation by Pyk2 via interaction and phosphorylation of the ARA55 coregulator. *J Biol Chem.* 2002; 277(18):15426-15431.(Biology: Immunoprecipitation, Western blot)