

HIC-2 (N-12): sc-86486

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. HIC-2 (hypermethylated in cancer 2) possesses zinc finger motifs that are thought to be important for DNA-binding and also has a BTB/POZ domain at the N-terminus, which is thought to be important for protein-protein binding, as well as for the binding of transcription factors. HIC-2 is also known as Hic-3, HIC1-related gene on chromosome 22 or Zinc finger and BTB domain-containing protein 30, and is a 615 amino acid protein that is expressed as two isoforms produced by alternative splicing. HIC-2 is highly expressed in cerebellum and is localized to the nucleus in cells. HIC-2 contains a short amino acid sequence that is thought to interact with CtBP, a transcriptional repressor. The gene sequence associated with HIC-2 is thought to be a target for miRNAs (microRNAs) which are expressed in many cancers, suggesting that HIC-2 could possess tumor suppressor capabilities.

REFERENCES

1. Deltour, S., Pinte, S., Guerardel, C. and Leprince, D. 2001. Characterization of HRG22, a human homologue of the putative tumor suppressor gene HIC-1. *Biochem. Biophys. Res. Commun.* 287: 427-434.
2. Deltour, S., Pinte, S., Guerardel, C., Wasylyk, B. and Leprince, D. 2002. The human candidate tumor suppressor gene HIC-1 recruits CtBP through a degenerate GLDLSKK motif. *Mol. Cell. Biol.* 22: 4890-4901.
3. Bertrand, S., Pinte, S., Stankovic-Valentin, N., Deltour-Balardi, S., Guerardel, C., Begue, A., Laudet, V. and Leprince, D. 2004. Identification and developmental expression of the zebrafish orthologue of the tumor suppressor gene HIC-1. *Biochim. Biophys. Acta* 1678: 57-66.

CHROMOSOMAL LOCATION

Genetic locus: HIC2 (human) mapping to 22q11.21; Hic2 (mouse) mapping to 16 A3.

SOURCE

HIC-2 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HIC-2 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-86486 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-86486 X, 100 µg/0.1 ml.

STORAGE

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

APPLICATIONS

HIC-2 (N-12) is recommended for detection of HIC-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for HIC-2 siRNA (h): sc-75253, HIC-2 siRNA (m): sc-145959, HIC-2 shRNA Plasmid (h): sc-75253-SH, HIC-2 shRNA Plasmid (m): sc-145959-SH, HIC-2 shRNA (h) Lentiviral Particles: sc-75253-V and HIC-2 shRNA (m) Lentiviral Particles: sc-145959-V.

HIC-2 (N-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

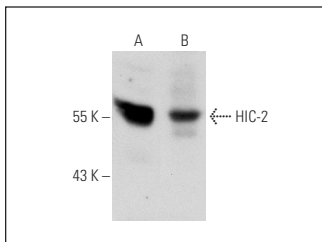
Molecular Weight of HIC-2: 66 kDa.

Positive Controls: IMR-32 nuclear extract: sc-2148, HL-60 nuclear extract: sc-2147 or Hep G2 nuclear extract: sc-364819.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



HIC-2 (N-12): sc-86486. Western blot analysis of HIC-2 expression in IMR-32 (A) and Hep G2 (B) nuclear extracts.

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.