

# HIC-2 (S-16): sc-86487

## 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 2 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., et al. 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., et al. 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., et al. 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 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-86487 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-86487 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 (S-16) 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 (S-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

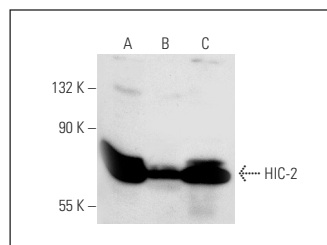
Molecular Weight of HIC-2: 66 kDa.

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

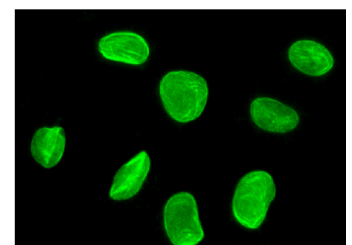
## RECOMMENDED SECONDARY REAGENTS

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 (S-16): sc-86487. Western blot analysis of HIC-2 expression in IMR-32 (A), Hep G2 (B) and HL-60 (C) nuclear extracts.



HIC-2 (S-16): sc-86487. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear envelope localization.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.