SANTA CRUZ BIOTECHNOLOGY, INC.

HIRIP3 (E-9): sc-514646

BACKGROUND

The HIRIP3 (HIRA interacting protein 3) locus encodes for a 556 amino acid protein that directly interacts with the HIRA histone chaperone. It also interacts weakly with core histones, Histone H2B and Histone H3. HIRIP3 is a heavily phosphorylated nuclear protein and it is found throughout the cell cycle. It is phosphorylated by casein kinase II. HIRIP3 may play a role in chromatin function and histone metabolism. A region (approximately 60 amino acids in length) at the C-terminus of HIRIP3 is highly conserved among vertebrates and it contains residues that are invariantly charged, polar and hydrophobic. Two isoforms of HIRIP3 exist due to alternative splicing. Isoform 1 is predominately expressed in skeletal muscles and isoform 2 is expressed in the liver and the heart. Human HIRA homologs are thought to be responsible for the DiGeorge syndrome and related developmental disorders.

REFERENCES

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2. Magnaghi, P., Roberts, C., Lorain, S., Lipinski, M. and Scambler, P.J. 1998. HIRA, a mammalian homologue of *Saccharomyces cerevisiae* transcriptional co-repressors, interacts with Pax3. Nat. Genet. 20: 74-77.
3. Online Mendelian Inheritance in Man, OMIM™. 1998. John Hopkins University, Baltimore, MD. MIM Number: 603365. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Lorain, S., Lécluse, Y., Scamps, C., Mattéi, M.G. and Lipinski, M. 2001. Identification of human and mouse HIRA-interacting protein-5 (HIRIP5), two mammalian representatives in a family of phylogenetically conserved proteins with a role in the biogenesis of Fe/S proteins. Biochim. Biophys. Acta 1517: 376-383.
5. Ahmad, A., Kikuchi, H., Takami, Y. and Nakayama, T. 2005. Different roles of N-terminal and C-terminal halves of HIRA in transcription regulation of cell cycle-related genes that contribute to control of vertebrate cell growth. J. Biol. Chem. 280: 32090-32100.
6. Frith, M.C., Ponjavic, J., Fredman, D., Kai, C., Kawai, J., Carninci, P., Hayashizaki, Y., Hayshizaki, Y. and Sandelin, A. 2006. Evolutionary turnover of mammalian transcription start sites. Genome Res. 16: 713-722.

CHROMOSOMAL LOCATION

Genetic locus: Hirip3 (mouse) mapping to 7 F3.

SOURCE

HIRIP3 (E-9) is a mouse monoclonal antibody raised against amino acids 46-88 mapping near the N-terminus of HIRIP3 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_3 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HIRIP3 (E-9) is recommended for detection of HIRIP3 of mouse origin by Western Blotting (starting dilution 1:100, 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 HIRIP3 siRNA (m): sc-145972, HIRIP3 shRNA Plasmid (m): sc-145972-SH and HIRIP3 shRNA (m) Lentiviral Particles: sc-145972-V.

Molecular Weight (predicted) of HIRIP3: 62 kDa.

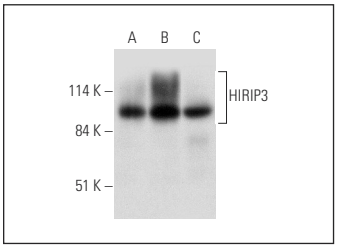
Molecular Weight (observed) of HIRIP3: 90 kDa.

Positive Controls: mouse heart extract: sc-2254, mouse liver extract: sc-2256 or mouse skeletal muscle extract: sc-364250.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HIRIP3 (E-9): sc-514646. Western blot analysis of HIRIP3 expression in mouse heart (**A**), mouse liver (**B**) and mouse skeletal muscle (**C**) tissue extracts.

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.