

# HIRIP3 (2415C2a): sc-81096

## 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 predominantly 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

- Lorain, S., Quivy, J.P., Monier-Gavelle, F., Scamps, C., Lécluse, Y., Almouzni, G. and Lipinski, M. 1998. Core histones and HIRIP3, a novel histone-binding protein, directly interact with WD repeat protein HIRA. *Mol. Cell. Biol.* 18: 5546-5556.
- 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.
- 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/>
- 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.
- 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.
- 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.
- Luk, E., Vu, N.D., Patteson, K., Mizuguchi, G., Wu, W.H., Ranjan, A., Backus, J., Sen, S., Lewis, M., Bai, Y. and Wu, C. 2007. Chz1, a nuclear chaperone for Histone H2AZ. *Mol. Cell* 25: 357-368.
- Assrir, N., Filhol, O., Galisson, F. and Lipinski, M. 2007. HIRIP3 is a nuclear phosphoprotein interacting with and phosphorylated by the serine-threonine kinase CK2. *Biol. Chem.* 388: 391-398.
- SWISS-PROT/TrEMBL (Q9BW71). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

## STORAGE

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

## CHROMOSOMAL LOCATION

Genetic locus: HIRIP3 (human) mapping to 16p11.2.

## SOURCE

HIRIP3 (2415C2a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of HIRIP3 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

## APPLICATIONS

HIRIP3 (2415C2a) is recommended for detection of HIRIP3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

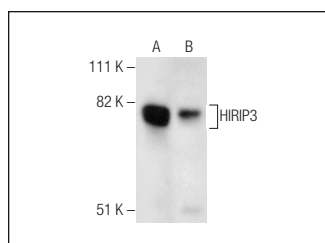
Suitable for use as control antibody for HIRIP3 siRNA (h): sc-93460, HIRIP3 shRNA Plasmid (h): sc-93460-SH and HIRIP3 shRNA (h) Lentiviral Particles: sc-93460-V.

Molecular Weight (predicted) of HIRIP3: 62 kDa.

Molecular Weight (observed) of HIRIP3: 90 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132 or K-562 nuclear extract: sc-2130.

## DATA



HIRIP3 (2415C2a): sc-81096. Western blot analysis of HIRIP3 expression in Jurkat (A) and K-562 (B) nuclear extracts.

## 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) for detailed protocols and support products.