

# HIRIP3 (D-10): sc-376814

## 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 exists 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., et al. 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., et al. 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. Johns Hopkins University, Baltimore, MD. MIM Number: 603365. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Lorain, S., et al. 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., et al. 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

HIRIP3 (D-10) is a mouse monoclonal antibody raised against amino acids 1-100 mapping at the N-terminus of HIRIP3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HIRIP3 (D-10) is available conjugated to agarose (sc-376814 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376814 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376814 PE), fluorescein (sc-376814 FITC), Alexa Fluor® 488 (sc-376814 AF488), Alexa Fluor® 546 (sc-376814 AF546), Alexa Fluor® 594 (sc-376814 AF594) or Alexa Fluor® 647 (sc-376814 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376814 AF680) or Alexa Fluor® 790 (sc-376814 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

HIRIP3 (D-10) is recommended for detection of HIRIP3 of human 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 (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.

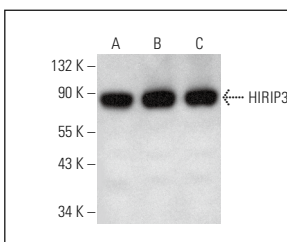
Molecular Weight (observed) of HIRIP3: 90 kDa.

Positive Controls: Hep G2 nuclear extract: sc-364819, HL-60 nuclear extract: sc-2147 or K-562 nuclear extract: sc-2130.

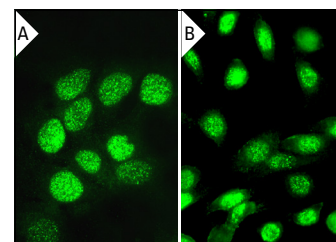
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



HIRIP3 (D-10): sc-376814. Western blot analysis of HIRIP3 expression in Hep G2 (A), HL-60 (B) and K-562 (C) nuclear extracts.



HIRIP3 (D-10): sc-376814. Immunofluorescence staining of formalin-fixed Hep G2 (A) and SW480 (B) cells showing nuclear localization.

## 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.

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