

# HiNF-P (C-5): sc-373855

## BACKGROUND

HiNF-P is a critical transcription factor which is necessary for E2F-independent activation of the Histone H4 multigene family. HiNF-P associates with conserved H4 cell cycle regulatory sequences *in vivo*. Antisense inhibition of HiNF-P reduces endogenous Histone H4 gene expression. HiNF-P utilizes NPAT/p220, a substrate of the cyclin E/cyclin-dependent kinase 2 (CDK2) kinase complex, as a crucial coactivator to amplify Histone H4 gene transcription. The biological role of HiNF-P is reflected by impeded cell cycle progression into S phase upon antisense-mediated reduction of HiNF-P levels. Research indicates that HiNF-P is the key link in a linear signaling pathway that is initiated with the growth factor-dependent induction of cyclin E/CDK2 kinase activity at the restriction point and culminates in the activation of Histone H4 genes through HiNF-P at the G<sub>1</sub>/S phase transition.

## REFERENCES

1. van Wijnen, A.J., et al. 1991. Transcriptional element H4-site II of cell cycle regulated human H4 Histone genes is a multipartite protein/DNA interaction site for factors HiNF-D, HiNF-M, and HiNF-P: involvement of phosphorylation. *J. Cell. Biochem.* 46: 174-189.
2. van den Ent, F.M., et al. 1993. Concerted control of multiple histone promoter factors during cell density inhibition of proliferation in osteosarcoma cells: reciprocal regulation of cell cycle-controlled and bone-related genes. *Cancer Res.* 53: 2399-2409.
3. Aziz, F., et al. 1998. The integrated activities of IRF-2 (HiNF-M), CDP/cut (HiNF-D) and H4TF-2 (HiNF-P) regulate transcription of a cell cycle controlled human Histone H4 gene: mechanistic differences between distinct H4 genes. *Mol. Biol. Rep.* 25: 1-12.

## CHROMOSOMAL LOCATION

Genetic locus: HINFP (human) mapping to 11q23.3; Hinfp (mouse) mapping to 9 A5.2.

## SOURCE

HiNF-P (C-5) is a mouse monoclonal antibody raised against amino acids 64-270 mapping within an internal region of HiNF-P of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-373855 X, 200 µg/0.1 ml.

HiNF-P (C-5) is available conjugated to agarose (sc-373855 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373855 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373855 PE), fluorescein (sc-373855 FITC), Alexa Fluor® 488 (sc-373855 AF488), Alexa Fluor® 546 (sc-373855 AF546), Alexa Fluor® 594 (sc-373855 AF594) or Alexa Fluor® 647 (sc-373855 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373855 AF680) or Alexa Fluor® 790 (sc-373855 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

HiNF-P (C-5) is recommended for detection of HiNF-P of mouse, rat and 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 HiNF-P siRNA (h): sc-60790, HiNF-P siRNA (m): sc-60791, HiNF-P shRNA Plasmid (h): sc-60790-SH, HiNF-P shRNA Plasmid (m): sc-60791-SH, HiNF-P shRNA (h) Lentiviral Particles: sc-60790-V and HiNF-P shRNA (m) Lentiviral Particles: sc-60791-V.

HiNF-P (C-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HiNF-P: 65 kDa.

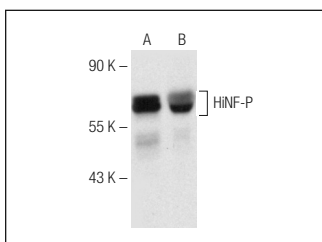
Molecular Weight of ubiquitinated HiNF-P: 83-109 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, human kidney extract: sc-363764 or human placenta extract: sc-363772.

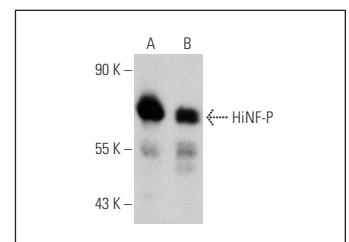
## RECOMMENDED SUPPORT REAGENTS

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



HiNF-P (C-5): sc-373855. Western blot analysis of HiNF-P expression in human kidney (A) and human placenta (B) tissue extracts.



HiNF-P (C-5): sc-373855. Western blot analysis of HiNF-P expression in SP2/0 (A) and RAW 264.7 (B) whole cell lysates.

## 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.