

# ZHX3 (D-10): sc-514773



The Power to Question

## BACKGROUND

Zinc-fingers and homeobox (ZHX) proteins are transcription factors that interact with the activation domain of the A subunit of nuclear factor-Y (NF-YA). ZHX1-3 are ubiquitously expressed proteins expressed in various tissues. They act as transcriptional repressors and localize to the nucleus. The ZHX proteins contain two Cys<sub>2</sub>-His<sub>2</sub>-type zinc-finger motifs and five homeodomains (HDs). These domains allow the ZHX proteins to form homodimers, but they can also form heterodimers with each other. However, this dimerization is not required for repressor activity. Hypermethylation-mediated silencing of ZHX2 is an epigenetic event involved in hepatocellular carcinoma (HCC).

## REFERENCES

1. Yamada, K., et al. 1999. Human ZHX1: cloning, chromosomal location and interaction with transcription factor NF-Y. *Biochem. Biophys. Res. Commun.* 261: 614-621.
2. Hirano, S., et al. 2002. Rat zinc-fingers and homeoboxes 1 (ZHX1), a nuclear factor-YA-interacting nuclear protein, forms a homodimer. *Gene* 290: 107-114.
3. Yamada, K., et al. 2002. Functional analysis and the molecular dissection of zinc-fingers and homeoboxes 1 (ZHX1). *Biochem. Biophys. Res. Commun.* 297: 368-374.
4. Shou, Z., et al. 2003. Genomic structure and analysis of transcriptional regulation of the mouse zinc-fingers and homeoboxes 1 (ZHX1) gene. *Gene* 302: 83-94.
5. Yamada, K., et al. 2003. Analysis of zinc-fingers and homeoboxes (ZHX) 1-interacting proteins: molecular cloning and characterization of a member of the ZHX family, ZHX3. *Biochem. J.* 373: 167-178.

## CHROMOSOMAL LOCATION

Genetic locus: ZHX3 (human) mapping to 20q12.

## SOURCE

ZHX3 (D-10) is a mouse monoclonal antibody raised against amino acids 389-517 mapping within an internal region of ZHX3 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.

ZHX3 (D-10) is available conjugated to agarose (sc-514773 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514773 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514773 PE), fluorescein (sc-514773 FITC), Alexa Fluor® 488 (sc-514773 AF488), Alexa Fluor® 546 (sc-514773 AF546), Alexa Fluor® 594 (sc-514773 AF594) or Alexa Fluor® 647 (sc-514773 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514773 AF680) or Alexa Fluor® 790 (sc-514773 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

ZHX3 (D-10) is recommended for detection of ZHX3 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 ZHX3 siRNA (h): sc-63247, ZHX3 shRNA Plasmid (h): sc-63247-SH and ZHX3 shRNA (h) Lentiviral Particles: sc-63247-V.

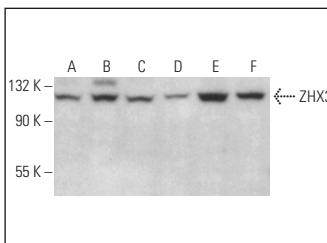
Molecular Weight of ZHX3: 105 kDa.

Positive Controls: MCF7 nuclear extract: sc-2149, ACHN whole cell lysate: sc-364365 or Caki-1 cell lysate: sc-2224.

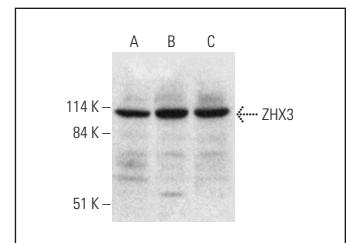
## RECOMMENDED SUPPORT REAGENTS

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



ZHX3 (D-10): sc-514773. Western blot analysis of ZHX3 expression in K-562 (A), Hep G2 (B), HEL 92.1.7 (C), BT-20 (D), NIH/3T3 (E) and 3611-RF (F) whole cell lysates.



ZHX3 (D-10): sc-514773. Western blot analysis of ZHX3 expression in MCF7 nuclear extract (A) and ACHN (B) and Caki-1 (C) 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.

## PROTOCOLS

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