SANTA CRUZ BIOTECHNOLOGY, INC.

ZHX2 (D-2): sc-393399

SANTA CRUZ BIOTECHNOLOGY

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(2)-His(2)-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 homeob 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 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.
6. Kawata, H., et al. 2003. Zinc-fingers and homeoboxes (ZHX) 2, a novel member of the ZHX family, functions as a transcriptional repressor. Biochem. J. 373: 747-757.

CHROMOSOMAL LOCATION

Genetic locus: ZHX2 (human) mapping to 8q24.13; Zhx2 (mouse) mapping to 15 D1.

SOURCE

ZHX2 (D-2) is a mouse monoclonal antibody raised against amino acids 578-687 mapping within an internal region of ZHX2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZHX2 (D-2) is available conjugated to agarose (sc-393399 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393399 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393399 PE), fluorescein (sc-393399 FITC), Alexa Fluor® 488 (sc-393399 AF488), Alexa Fluor® 546 (sc-393399 AF546), Alexa Fluor® 594 (sc-393399 AF594) or Alexa Fluor® 647 (sc-393399 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393399 AF680) or Alexa Fluor® 790 (sc-393399 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ZHX2 (D-2) is recommended for detection of ZHX2 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 ZHX2 siRNA (h): sc-63245, ZHX2 siRNA (m): sc-63246, ZHX2 shRNA Plasmid (h): sc-63245-SH, ZHX2 shRNA Plasmid (m): sc-63246-SH, ZHX2 shRNA (h) Lentiviral Particles: sc-63245-V and ZHX2 shRNA (m) Lentiviral Particles: sc-63246-V.

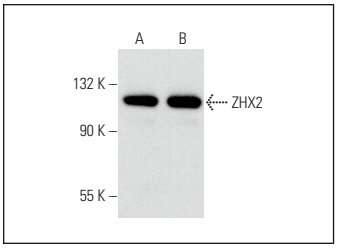
Molecular Weight of ZHX2: 100 kDa.

Positive Controls: Daudi cell lysate: sc-2415, Jurkat nuclear extract: sc-2132 or Caki-1 cell lysate: sc-2224.

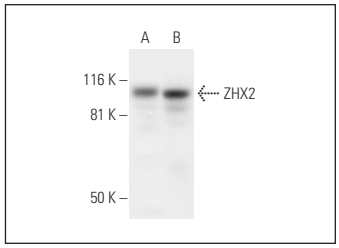
RECOMMENDED SUPPORT REAGENTS

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



ZHX2 (D-2): sc-393399. Western blot analysis of ZHX2 expression in Daudi (**A**) and U-698-M (**B**) whole cell lysates.



ZHX2 (D-2): sc-393399. Western blot analysis of ZHX2 expression in Caki-1 whole cell lysate (**A**) and Jurkat nuclear extract (**B**).

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 for detailed protocols and support products.