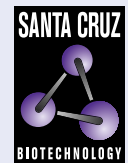


ZHX1 (E-6): sc-514284



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 Cys₂-His₂-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. 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.
3. Hirano, S., et al. 2002. Rat zinc-fingers and homeob protein, forms a homodimer. *Gene* 290: 107-114.
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. Kawata, H., et al. 2003. The mouse zinc-fingers and homeoboxes (ZHX) family; ZHX2 forms a heterodimer with ZHX3. *Gene* 323: 133-140.
6. 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: ZHX1 (human) mapping to 8q24.13; Zhx1 (mouse) mapping to 15 D1.

SOURCE

ZHX1 (E-6) is a mouse monoclonal antibody raised against amino acids 771-873 mapping at the C-terminus of ZHX1 of human origin.

PRODUCT

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

ZHX1 (E-6) is available conjugated to agarose (sc-514284 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514284 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514284 PE), fluorescein (sc-514284 FITC), Alexa Fluor® 488 (sc-514284 AF488), Alexa Fluor® 546 (sc-514284 AF546), Alexa Fluor® 594 (sc-514284 AF594) or Alexa Fluor® 647 (sc-514284 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514284 AF680) or Alexa Fluor® 790 (sc-514284 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ZHX1 (E-6) is recommended for detection of ZHX1 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 ZHX1 siRNA (h): sc-61827, ZHX1 siRNA (m): sc-61828, ZHX1 shRNA Plasmid (h): sc-61827-SH, ZHX1 shRNA Plasmid (m): sc-61828-SH, ZHX1 shRNA (h) Lentiviral Particles: sc-61827-V and ZHX1 shRNA (m) Lentiviral Particles: sc-61828-V.

Molecular Weight (predicted) of ZHX1: 98 kDa.

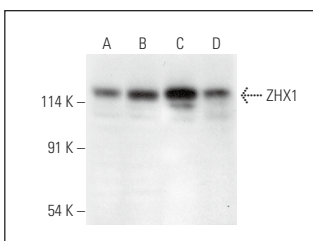
Molecular Weight (observed) of ZHX1: 135 kDa.

Positive Controls: PANC-1 whole cell lysate: sc-364380, HeLa whole cell lysate: sc-2200 or HeLa nuclear extract: sc-2120.

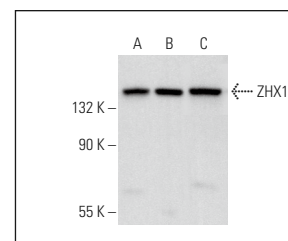
RECOMMENDED SUPPORT REAGENTS

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



ZHX1 (E-6): sc-514284. Western blot analysis of ZHX1 expression in PANC-1 (A) and HeLa (B) whole cell lysates and HeLa (C) and A-431 (D) nuclear extracts.



ZHX1 (E-6): sc-514284. Western blot analysis of ZHX1 expression in HEK293 (A) and Jurkat (B) whole cell lysates and HeLa nuclear extract (C).

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.