

# ZHX3 (C-19): sc-55446



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.
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: ZHX3 (human) mapping to 20q12; Zhx3 (mouse) mapping to 2 H2.

## SOURCE

ZHX3 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ZHX3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55446 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

ZHX3 (C-19) is recommended for detection of ZHX3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 siRNA (m): sc-63248, ZHX3 shRNA Plasmid (h): sc-63247-SH, ZHX3 shRNA Plasmid (m): sc-63248-SH, ZHX3 shRNA (h) Lentiviral Particles: sc-63247-V and ZHX3 shRNA (m) Lentiviral Particles: sc-63248-V.

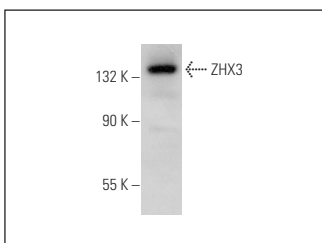
Molecular Weight of ZHX3: 105 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



ZHX3 (C-19): sc-55446. Western blot analysis of ZHX3 expression in HEK293 whole cell lysate.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **ZHX3 (D-10): sc-514773**, our highly recommended monoclonal alternative to ZHX3 (C-19).