

ZHX3 (S-20): sc-55450



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., Printz, R.L., Osawa, H. and Granner, DK. 1999. Human ZHX1: cloning, chromosomal location, and interaction with transcription factor NF-Y. *Biochem. Biophys. Res. Commun.* 261: 614-621.
2. Hirano, S., Yamada, K., Kawata, H., Shou, Z., Mizutani, T., Yazawa, T., Kajitani, T., Sekiguchi, T., Yoshino, M., Shigematsu, Y., Mayumi, M. and Miyamoto, K. 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., Kawata, H., Matsuura, K., Shou, Z., Hirano, S., Mizutani, T., Yazawa, T., Yoshino, M., Sekiguchi, T., Kajitani, T. and Miyamoto, K. 2002. Functional analysis and the molecular dissection of zinc-fingers and homeoboxes 1 (ZHX1). *Biochem. Biophys. Res. Commun.* 297: 368-374.
4. Shou, Z., Yamada, K., Inazu, T., Kawata, H., Hirano, S., Mizutani, T., Yazawa, T., Sekiguchi, T., Yoshino, M., Kajitani, T., Okada, K. and Miyamoto, K. 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., Kawata, H., Shou, Z., Hirano, S., Mizutani, T., Yazawa, T., Sekiguchi, T., Yoshino, M., Kajitani, T. and Miyamoto, K. 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 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-55450 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ZHX3 (S-20) is recommended for detection of ZHX3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ZHX3 (S-20) is also recommended for detection of ZHX3 in additional species, including equine.

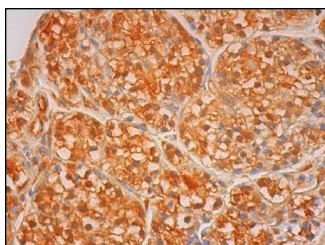
Suitable for use as control antibody for ZHX3 siRNA (h): sc-63247, ZHX3 shRNA Plasmid (h): sc-63247-SH and ZHX3 shRNA (h) Lentiviral Particles: sc-63247-V.

Molecular Weight of ZHX3: 105 kDa.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ZHX3 (S-20): sc-55450. Immunoperoxidase staining of formalin fixed, paraffin-embedded human parathyroid gland tissue showing nuclear and cytoplasmic staining of glandular cells.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.