SANTA CRUZ BIOTECHNOLOGY, INC.

ZHX3 (H-129): sc-292339



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

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- 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)-1interacting 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.
- 7. Kawata, H., et al. 2003. The mouse zinc-fingers and homeoboxes (ZHX) family; ZHX2 forms a heterodimer with ZHX3. Gene 323: 133-140.
- 8. Lv, Z., Zhang, et al. 2006. Promoter hypermethylation of a novel gene, ZHX2, in hepatocellular carcinoma. Am. J. Clin. Pathol. 125: 740-746.

CHROMOSOMAL LOCATION

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

SOURCE

ZHX3 (H-129) is a rabbit polyclonal antibody raised against amino acids 389-517 mapping within an internal region of ZHX3 of human origin.

PRODUCT

Each vial contains 200 μ g lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ZHX3 (H-129) 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).

ZHX3 (H-129) is also recommended for detection of ZHX3 in additional species, including equine, canine and bovine.

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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat antirabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try ZHX3 (D-10): sc-514773, our highly recommended monoclonal alternative to ZHX3 (H-129).