

# ZNF3 (H-10): sc-376519

## BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZNF3, also known as KOX25, is a zinc finger protein belonging to the Krüppel C<sub>2</sub>H<sub>2</sub>-type zinc finger protein family. It localizes to the nucleus and is involved in cell differentiation and proliferation. ZNF3 is a 446 amino acid long protein that contains eight C<sub>2</sub>H<sub>2</sub>-type zinc fingers and one KRAB domain. ZNF3 is located in a cluster of KOX zinc-finger genes found on chromosome 10.

## REFERENCES

1. Rousseau-Merck, M.F., et al. 2002. The KOX zinc finger genes: genome wide mapping of 368 ZNF PAC clones with zinc finger gene clusters predominantly in 23 chromosomal loci are confirmed by human sequences annotated in EnsEMBL. *Cytogenet. Genome Res.* 98: 147-153.
2. Sun, Y., et al. 2003. The KRAB domain of zinc finger gene ZNF268: a potential transcriptional repressor. *IUBMB Life* 55: 127-131.
3. Nakamura, M., et al. 2004. A novel subfamily of zinc finger genes involved in embryonic development. *J. Cell. Biochem.* 93: 887-895.
4. Englbrecht, C.C., et al. 2004. Conservation, diversification and expansion of C<sub>2</sub>H<sub>2</sub> zinc finger proteins in the *Arabidopsis thaliana* genome. *BMC Genomics* 5: 39.
5. Li, Y., et al. 2006. A novel zinc-finger protein ZNF436 suppresses transcriptional activities of AP-1 and SRE. *Mol. Biol. Rep.* 33: 287-294.
6. Zhong, Z., et al. 2007. Identification of a novel human zinc finger gene, ZNF438, with transcription inhibition activity. *J. Biochem. Mol. Biol.* 40: 517-524.

## CHROMOSOMAL LOCATION

Genetic locus: ZNF3 (human) mapping to 7q22.1.

## SOURCE

ZNF3 (H-10) is a mouse monoclonal antibody raised against amino acids 106-214 mapping within an internal region of ZNF3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376519 X, 200 µg/0.1 ml.

ZNF3 (H-10) is available conjugated to agarose (sc-376519 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376519 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376519 PE), fluorescein (sc-376519 FITC), Alexa Fluor<sup>®</sup> 488 (sc-376519 AF488), Alexa Fluor<sup>®</sup> 546 (sc-376519 AF546), Alexa Fluor<sup>®</sup> 594 (sc-376519 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-376519 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-376519 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-376519 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

ZNF3 (H-10) is recommended for detection of ZNF3 of 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 ZNF3 siRNA (h): sc-89851, ZNF3 shRNA Plasmid (h): sc-89851-SH and ZNF3 shRNA (h) Lentiviral Particles: sc-89851-V.

ZNF3 (H-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of ZNF3: 51 kDa.

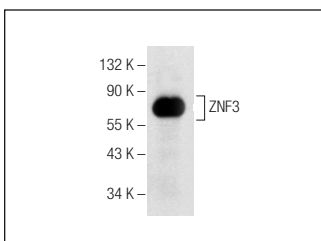
Molecular Weight (observed) of ZNF3: 58-65 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or human ovary extract: sc-363769.

## 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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



ZNF3 (H-10): sc-376519. Western blot analysis of ZNF3 expression in human ovary tissue extract.

## 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.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA