



ZNF652 (O-23): sc-102259

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. Zinc finger protein 652 (ZNF652) is a 606 amino acid member of the Krüppel C₂H₂-type zinc finger protein family. Localized to the nucleus and highly expressed in breast, prostate and pancreas, ZNF652 contains nine C₂H₂-type zinc fingers, which are predicted to bind DNA. ZNF652 has been shown to interact with ETO-2, a putative breast tumor suppressor that represses transcription through its interaction with different DNA-binding zinc finger proteins. In this interaction, ZNF652 represses ETO-2 transcription, thereby playing a role in tumorigenesis.

REFERENCES

1. Berg, J.M. 1988. Proposed structure for the zinc-binding domains from transcription factor IIIA and related proteins. *Proc. Natl. Acad. Sci. USA* 85: 99-102.
2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
3. Rosenfeld, R. and Margalit, H. 1993. Zinc fingers: conserved properties that can distinguish between spurious and actual DNA-binding motifs. *J. Biomol. Struct. Dyn.* 11: 557-570.
4. Abrink, M., Aveskogh, M. and Hellman, L. 1995. Isolation of cDNA clones for 42 different Krüppel-related zinc finger proteins expressed in the human monoblast cell line U-937. *DNA Cell Biol.* 14: 125-136.
5. Walter, L. and Günther, E. 2000. Physical mapping and evolution of the centromeric class I gene-containing region of the rat MHC. *Immunogenetics* 51: 829-837.
6. Durand, S., Abadie, P., Angeletti, S. and Genti-Raimondi, S. 2003. Identification of multiple differentially expressed messenger RNAs in normal and pathological trophoblast. *Placenta* 24: 209-218.
7. Kumar, R., Manning, J., Spendlove, H.E., Kremmidiotis, G., McKirdy, R., Lee, J., Millband, D.N., Cheney, K.M., Stampfer, M.R., Dwivedi, P.P., Morris, H.A. and Callen, D.F. 2006. ZNF652, a novel zinc finger protein, interacts with the putative breast tumor suppressor CBFA2T3 to repress transcription. *Mol. Cancer Res.* 4: 655-665.
8. Tian, C.Y., Zhang, L.Q. and He, F.C. 2006. Progress in the study of KRAB zinc finger protein. *Yi Chuan* 28: 1451-1456.
9. Liu, J. and Stormo, G.D. 2008. Context-dependent DNA recognition code for C₂H₂ zinc-finger transcription factors. *Bioinformatics* 24: 1850-1857

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.

CHROMOSOMAL LOCATION

Genetic locus: ZNF652 (human) mapping to 17q21.32.

SOURCE

ZNF652 (O-23) is a purified rabbit polyclonal antibody raised against ZNF652 of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and <0.02% sucrose.

APPLICATIONS

ZNF652 (O-23) is recommended for detection of ZNF652 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZNF652 siRNA (h): sc-94191, ZNF652 shRNA Plasmid (h): sc-94191-SH and ZNF652 shRNA (h) Lentiviral Particles: sc-94191-V.

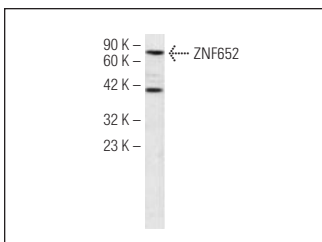
Molecular Weight of ZNF652: 85 kDa.

Positive Controls: HeLa Whole Cell Lysate : sc-2200.

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 anti-rabbit 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).

DATA



ZNF652 (O-23): sc-102259. Western blot analysis of ZNF652 expression in HeLa whole cell lysate.

PROTOCOLS

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