

ZNF276 (S-13): sc-132166

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. ZNF276 is a 614 amino acid protein containing five C₂H₂-type zinc fingers and one zinc-finger associated (ZAD) domain. Due to a loss of heterozygosity at the chromosomal location of the gene encoding ZNF276 in sporadic breast cancers, the ZNF276 gene has been targeted as a possible breast cancer tumor suppressor. The FANCA gene, which encodes a DNA repair protein, is situated at the same chromosomal location as the ZNF276 gene, suggesting a possible involvement of ZNF276 in the progression of Fanconi anemia, an autosomal recessive disorder which is caused by mutations in the gene encoding FANCA. There are two isoforms of ZNF276 that exist as a result of an alternative splicing event.

REFERENCES

1. Payre, F. and Vincent, A. 1988. Finger proteins and DNA-specific recognition: distinct patterns of conserved amino acids suggest different evolutionary modes. *FEBS Lett.* 234: 245-250.
2. Brenner, A.J. and Aldaz, C.M. 1997. The genetics of sporadic breast cancer. *Prog. Clin. Biol. Res.* 396: 63-82.
3. Nakamura, A., Matsuura, S., Tauchi, H., Hanada, R., Ohashi, H., Hasegawa, T., Honda, K., Masuno, M., Imaizumi, K., Sugita, K., Ide, T. and Komatsu, K. 1999. Four novel mutations of the Fanconi anemia group A gene (FAA) in Japanese patients. *J. Hum. Genet.* 44: 48-51.
4. Wong, J.C., Alon, N., Norga, K., Kruyt, F.A., Youssoufian, H. and Buchwald, M. 2000. Cloning and analysis of the mouse Fanconi anemia group A cDNA and an overlapping penta zinc-finger cDNA. *Genomics* 67: 273-283.
5. Chung, H.R., Schäfer, U., Jäckle, H. and Böhm, S. 2002. Genomic expansion and clustering of ZAD-containing C₂H₂ zinc-finger genes in *Drosophila*. *EMBO Rep.* 3: 1158-1162.
6. Wong, J.C., Gokgoz, N., Alon, N., Andrulis, I.L. and Buchwald, M. 2003. Cloning and mutation analysis of ZFP276 as a candidate tumor suppressor in breast cancer. *J. Hum. Genet.* 48: 668-671.
7. Jauch, R., Bourenkov, G.P., Chung, H.R., Urlaub, H., Reidt, U., Jäckle, H. and Wahl, M.C. 2003. The zinc finger-associated domain of the *Drosophila* transcription factor grauzone is a novel zinc-coordinating protein-protein interaction module. *Structure* 11: 1393-1402.
8. Imami, K., Sugiyama, N., Kyono, Y., Tomita, M. and Ishihama, Y. 2008. Automated phosphoproteome analysis for cultured cancer cells by two-dimensional nanoLC-MS using a calcined titania/C18 biphasic column. *Anal. Sci.* 24: 161-166.
9. Liu, J. and Stormo, G.D. 2008. Context-dependent DNA recognition code for C₂H₂ zinc-finger transcription factors. *Bioinformatics.* 24: 1850-1857.

CHROMOSOMAL LOCATION

Genetic locus: ZNF276 (human) mapping to 16q24.3; Zfp276 (mouse) mapping to 8 E1.

SOURCE

ZNF276 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNF276 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-132166 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNF276 (S-13) is recommended for detection of ZNF276 isoforms 1 and 2 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); non cross-reactive with other ZNF family members.

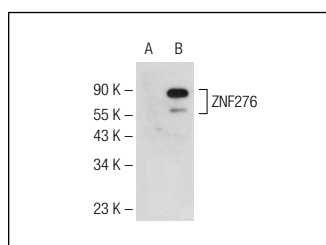
ZNF276 (S-13) is also recommended for detection of ZNF276 isoforms 1 and 2 in additional species, including equine and canine.

Suitable for use as control antibody for ZNF276 siRNA (h): sc-93071, ZNF276 siRNA (m): sc-155674, ZNF276 shRNA Plasmid (h): sc-93071-SH, ZNF276 shRNA Plasmid (m): sc-155674-SH, ZNF276 shRNA (h) Lentiviral Particles: sc-93071-V and ZNF276 shRNA (m) Lentiviral Particles: sc-155674-V.

Molecular Weight of ZNF276: 67 kDa.

Positive Controls: ZNF276 (h4): 293T Lysate: sc-178164.

DATA



ZNF276 (S-13): sc-132166. Western blot analysis of ZNF276 expression in non-transfected: sc-117752 (A) and human ZNF276 transfected: sc-178164 (B) 293T whole cell lysates.

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.