SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF276 (F-10): sc-398207

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 C_2H_2-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., et al. 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., et al. 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., et al. 2002. Genomic expansion and clustering of ZAD-containing C_2H_2 zinc-finger genes in *Drosophila*. EMBO Rep. 3: 1158-1162.
6. Wong, J.C., et al. 2003. Cloning and mutation analysis of ZFP276 as a candidate tumor suppressor in breast cancer. J. Hum. Genet. 48: 668-671.
7. Jauch, R., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

ZNF276 (F-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 450-475 within an internal region of ZNF276 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398207 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ZNF276 (F-10) is recommended for detection of ZNF276 isoforms 1 and 2 of mouse, rat and 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 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.

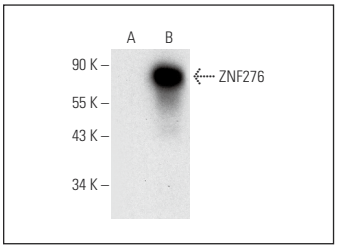
Molecular Weight of ZNF276: 67 kDa.

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

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™ Molecular Weight Standards: sc-2035, UltraCruz® 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ZNF276 (F-10): sc-398207. 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.

PROTOCOLS

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