ZNF271 (F-17): sc-82444



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. 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. As a member of the krueppel $\rm C_2H_2$ -type zinc-finger protein family, ZNF271 (zinc finger protein 271), also known as zinc finger protein 7, HZF7 and Epstein-Barr virus-induced zinc finger protein, is a 655 amino acid nuclear protein that contains 19 $\rm C_2H_2$ -type zinc fingers. ZNF271 is expressed in pancreatic islet cells, T-cell lines, thryoid and thymocytes. Interestingly, ZNF271 plays a significant role in Epstein-Barr virus transformation. The gene encoding ZNF271 maps to a chromosomal region that is frequently associated with hematopoietic malignancies. There are two isoforms of ZNF271 that are produced as a result of alternative splicing events.

REFERENCES

- 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.
- 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.
- 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.
- Tune, C.E., Pilon, M., Saiki, Y. and Dosch, H.M. 2002. Sustained expression of the novel EBV-induced zinc finger gene, ZNFEB, is critical for the transition of B lymphocyte activation to oncogenic growth transformation.
 J. Immunol. 168: 680-688.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604754. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Wali, A., Ali, G., John, P., Lee, K., Chishti, M.S., Leal, S.M. and Ahmad, W. 2007. Mapping of a gene for alopecia with mental retardation syndrome (APMR3) on chromosome 18q11.2-q12.2. Ann. Hum. Genet. 71: 570-577.
- Niller, H.H., Wolf, H. and Minarovits, J. 2008. Regulation and dysregulation of Epstein-Barr virus latency: implications for the development of autoimmune diseases. Autoimmunity 41: 298-328.
- 8. Liu, J. and Stormo, G.D. 2008. Context-dependent DNA recognition code for C_2H_2 zinc-finger transcription factors. Bioinformatics 24: 1850-1857.

CHROMOSOMAL LOCATION

Genetic locus: Zfp35 (mouse) mapping to 18 A2.

SOURCE

ZNF271 (F-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ZNF271 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-82444 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-82444 X, 200 μ g/0.1 ml.

APPLICATIONS

ZNF271 (F-17) is recommended for detection of ZNF271 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 ZNF271 siRNA (m): sc-76975, ZNF271 shRNA Plasmid (m): sc-76975-SH and ZNF271 shRNA (m) Lentiviral Particles: sc-76975-V.

ZNF271 (F-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ZNF271 isoforms: 76/48 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.

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