

ZNF70 (h2): 293 Lysate: sc-158159

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 Krüppel C₂H₂-type zinc-finger protein family, ZNF70 (Zinc finger protein 70), also known as Zinc finger protein N27C7-1, is a 446 amino acid nuclear protein that contains 11 C₂H₂-type zinc fingers. The gene encoding ZNF70 maps to chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia.

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. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
3. Aubry, M., Marineau, C., Zhang, F.R., Zahed, L., Figuewicz, D., Delattre, O., Thomas, G., de Jong, P.J., Julien, J.P. and Rouleau, G.A. 1992. Cloning of six new genes with zinc finger motifs mapping to short and long arms of human acrocentric chromosome 22 (p and q11.2). *Genomics* 13: 641-648.
4. 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.
5. Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 22. Genet. Test.* 2: 89-97.
6. Schwab, S.G. and Wildenauer, D.B. 1999. Chromosome 22 workshop report. *Am. J. Med. Genet.* 88: 276-278.
7. Laity, J.H., Lee, B.M. and Wright, P.E. 2001. Zinc finger proteins: new insights into structural and functional diversity. *Curr. Opin. Struct. Biol.* 11: 39-46.
8. Arinami, T. 2006. Analyses of the associations between the genes of 22q11 deletion syndrome and schizophrenia. *J. Hum. Genet.* 51: 1037-1045.
9. Gamsjaeger, R., Liew, C.K., Loughlin, F.E., Crossley, M. and Mackay, J.P. 2007. Sticky fingers: zinc-fingers as protein-recognition motifs. *Trends Biochem. Sci.* 32: 63-70.

CHROMOSOMAL LOCATION

Genetic locus: ZNF70 (human) mapping to 22q11.23.

PRODUCT

ZNF70 (h2): 293 Lysate represents a lysate of human ZNF70 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ZNF70 (h2): 293 Lysate is suitable as a Western Blotting positive control for human reactive ZNF70 antibodies. Recommended use: 10-20 µl per lane.

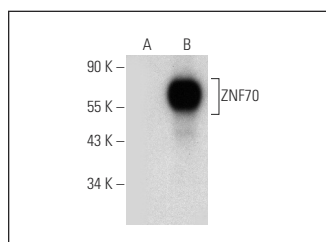
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

ZNF70 (F-8): sc-398828 is recommended as a positive control antibody for Western Blot analysis of enhanced human ZNF70 expression in ZNF70 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

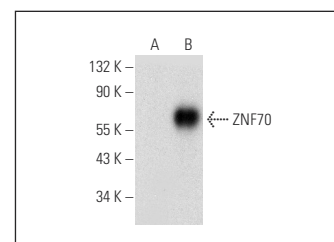
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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.

DATA



ZNF70 (F-8): sc-398828. Western blot analysis of ZNF70 expression in non-transfected: sc-110760 (A) and human ZNF70 transfected: sc-158159 (B) 293 whole cell lysates.



ZNF70 (P-12): sc-86956. Western blot analysis of ZNF70 expression in non-transfected: sc-110760 (A) and human ZNF70 transfected: sc-158159 (B) 293 whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.