

ZFY (E-14): sc-83959

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. ZFY (zinc finger Y-chromosomal protein) is a 801 amino acid protein that belongs to the Krüppel C₂H₂-type zinc finger protein family. ZFY was once considered a testis-determining factor (TDF) and was erroneously referred to as TDF. Localized to the nucleus, ZFY is suspected to be a transcriptional activator.

REFERENCES

1. Dorit, R.L., Akashi, H. and Gilbert, W. 1995. Absence of polymorphism at the ZFY locus on the human Y chromosome. *Science* 268: 1183-1185.
2. Mayer, A., Lahr, G., Swaab, D.F., Pilgrim, C. and Reisert, I. 1998. The Y-chromosomal genes SRY and ZFY are transcribed in adult human brain. *Neurogenetics* 1: 281-288.
3. Erlandsson, R., Wilson, J.F. and Pääbo, S. 2000. Sex chromosomal transposable element accumulation and male-driven substitutional evolution in humans. *Mol. Biol. Evol.* 17: 804-812.
4. Pecon Slattery, J., Sanner-Wachter, L. and O'Brien, S.J. 2000. Novel gene conversion between X-Y homologues located in the nonrecombining region of the Y chromosome in Felidae (Mammalia). *Proc. Natl. Acad. Sci. USA* 97: 5307-5312.
5. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 490000. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Skaletsky, H., Kuroda-Kawaguchi, T., Minx, P.J., Cordum, H.S., Hillier, L., Brown, L.G., Repping, S., Pyntikova, T., Ali, J., Bieri, T., Chinwalla, A., Delehaunty, A., Delehaunty, K., Du, H., Fewell, G., Fulton, L., Fulton, R., Graves, T., Hou, S.F., Latrielle, P., Leonard, S., et al. 2003. The male-specific region of the human Y chromosome is a mosaic of discrete sequence classes. *Nature* 423: 825-837.
7. Kim, H.R., Shin, J.H., Jung, W.Y. and Lee, J.N. 2006. Identification of Y-chromosome by molecular analysis in patients with Turner syndrome. *Korean J. Lab. Med.* 26: 131-136.
8. Curtis, C., Stewart, B.S. and Karl, S.A. 2007. Sexing pinnipeds with ZFX and ZFY loci. *J. Hered.* 98: 280-285.
9. Araujo, C., Galera, M.F., Galera, B.B., Silvestre, F.G. and Medeiros, S.F. 2008. Molecular identification of chromosome Y sequences in Brazilian patients with Turner syndrome. *Gynecol. Endocrinol.* 24: 713-717.

CHROMOSOMAL LOCATION

Genetic locus: ZFY (human) mapping to Yp11.31, ZFX (human) mapping to Xp22.11; Zfx (mouse) mapping to X C3.

SOURCE

ZFY (E-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ZFY of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83959 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZFY (E-14) is recommended for detection of ZFY in human and ZFX of mouse, rat and human 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).

ZFY (E-14) is also recommended for detection of ZFY and ZFX in additional species, including equine, canine and porcine.

Suitable for use as control antibody for ZFX siRNA (m): sc-155599, ZFX shRNA Plasmid (m): sc-155599-SH and ZFX shRNA (m) Lentiviral Particles: sc-155599-V.

Molecular Weight of ZFY: 91 kDa.

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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.