

TGIF2LY (K-16): sc-84632

BACKGROUND

The homeobox DNA-binding domain is a 60 amino acid motif that is conserved among many species. It also functions to bind DNA via a helix-turn-helix structure, thereby playing a role in transcriptional regulation and control of gene expression. TGIF2LY (TGFB-induced factor homeobox 2-like, Y-linked), also known as TGIFLY, is a 185 amino acid testis-specific nuclear protein that functions as a transcriptional regulator during spermatid maturation. TGIF2LY belongs to the TALE/TGIF homeobox family and contains one homeobox DNA-binding domain. The gene encoding TGIF2LY maps within a male specific region of chromosome Y, in a region implied to form following a large X-to-Y transposition. The C-terminal region of TGIF2LY differs from the C-terminal region of its chromosome X homolog TGIF2LX, which suggests that TGIF2LY may act as a competitor or regulator of TGIF2LX.

REFERENCES

1. Blanco-Arias, P., Sargent, C.A. and Affara, N.A. 2002. The human-specific Yp11.2/Xq21.3 homology block encodes a potentially functional testis-specific TGIF-like retroposon. *Mamm. Genome* 13: 463-468.
2. 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., Mardis, E., Maupin, R., McPherson, J., Miner, T., Nash, W., Nguyen, C., Ozersky, P., Pepin, K., Rock, S., Rohlfing, T., Scott, K., Schultz, B., Strong, C., Tin-Wollam, A., et al. 2003. The male-specific region of the human Y chromosome is a mosaic of discrete sequence classes. *Nature* 423: 825-837.
3. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 400025. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Aarabi, M., Ousati-Ashtiani, Z., Nazarian, A., Modarresi, M.H. and Heidari, M. 2008. Association of TGIFLX/Y mRNA expression with azoospermia in infertile men. *Mol. Reprod. Dev.* 75: 1761-1766.
5. Ousati Ashtiani, Z., Ayati, M., Modarresi, M.H., Raoofian, R., Sabah Gouljian, B., Greene, W.K. and Heidari, M. 2009. Association of TGIFLX/Y mRNA expression with prostate cancer. *Med. Oncol.* 26: 73-77.

CHROMOSOMAL LOCATION

Genetic locus: TGIF2LY (human) mapping to Yp11.2, TGIF2LX (human) mapping to Xq21.31.

SOURCE

TGIF2LY (K-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TGIF2LY of human origin.

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.

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-84632 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TGIF2LY (K-16) is recommended for detection of TGIF2LY and TGIF2LX of 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).

Molecular Weight of TGIF2LY: 21 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.

PROTOCOLS

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