

# TBZF (U-24): sc-134064

## 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. TBZF (TRAF6-inhibitory zinc finger protein), also known as Zinc finger protein 675, is a 568 amino acid nuclear protein that contains one KRAB domain and fifteen C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Through modulation of TRAF6 signaling activity and inhibition of RANK signaling, TBZF may play a role in osteoclast differentiation. TBZF is regulated during differentiation of human peripheral blood monocytes into osteoclasts and transfection of TBZF into RAW264.7 cells reduces RANK ligand-induced osteoclastogenesis.

## REFERENCES

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2. Klug, A. 1999. Zinc finger peptides for the regulation of gene expression. *J. Mol. Biol.* 293: 215-218.
3. Kobayashi, N., Kadono, Y., Naito, A., Matsumoto, K., Yamamoto, T., Tanaka, S. and Inoue, J. 2001. Segregation of TRAF6-mediated signaling pathways clarifies its role in osteoclastogenesis. *EMBO J.* 20: 1271-1280.
4. Shin, J.N., Kim, I., Lee, J.S., Koh, G.Y., Lee, Z.H. and Kim, H.H. 2002. A novel zinc finger protein that inhibits osteoclastogenesis and the function of tumor necrosis factor receptor-associated factor 6. *J. Biol. Chem.* 277: 8346-8353.
5. Zhang, Z., Jimi, E. and Bothwell, A.L. 2003. Receptor activator of NFκB ligand stimulates recruitment of SHP-1 to the complex containing TNFR-associated factor 6 that regulates osteoclastogenesis. *J. Immunol.* 171: 3620-3626.

## CHROMOSOMAL LOCATION

Genetic locus: ZNF675 (human) mapping to 19p12.

## SOURCE

TBZF (U-24) is a Protein A purified rabbit polyclonal antibody raised against synthetic TBZF peptide 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

TBZF (U-24) is recommended for detection of TBZF of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TBZF siRNA (h): sc-97513, TBZF shRNA Plasmid (h): sc-97513-SH and TBZF shRNA (h) Lentiviral Particles: sc-97513-V.

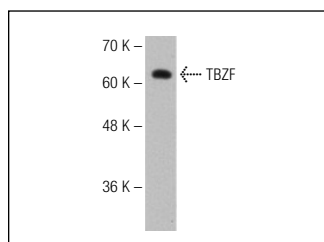
Molecular Weight of TBZF: 66 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



TBZF (U-24): sc-134064. Western blot analysis of TBZF expression in Jurkat whole cell lysate.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.