# SANTA CRUZ BIOTECHNOLOGY, INC.

# ZBTB48 (T-19): sc-102167



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 Kruppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. Zinc finger and BTB domain-containing protein 48 (ZBTB48), also known as Kruppel-related zinc finger protein 3 or HKR3, is a 688 amino acid member of the Kruppel  $C_2H_2$ -type zinc-finger protein family. Localized to the nucleus, ZBTB48 is expressed in the adrenal gland and neuroblastoma cell lines. ZBTB48 contains a BTB domain, also known as a POZ domain, which inhibits DNA binding and mediates homotypic and heterotypic dimerization. Characteristics of the BTB domain suggest that ZBTB48 functions as a transcription regulator.

#### REFERENCES

- Ruppert, J.M., Kinzler, K.W., Wong, A.J., Bigner, S.H., Kao, F.T., Law, M.L., Seuanez, H.N., O'Brien, S.J. and Vogelstein, B. 1988. The GLI-Kruppel family of human genes. Mol. Cell. Biol. 8: 3104-3113.
- 2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
- Sugawara, M., Scholl, T., Ponath, P.D. and Strominger, J.L. 1994. A factor that regulates the class II major histocompatibility complex gene DPA is a member of a subfamily of zinc finger proteins that includes a *Drosophila* developmental control protein. Mol. Cell. Biol. 14: 8438-8450.
- Abrink, M., Aveskogh, M. and Hellman, L. 1995. Isolation of cDNA clones for 42 different Kruppel-related zinc finger proteins expressed in the human monoblast cell line U-937. DNA Cell Biol. 14: 125-136.
- Maris, J.M., Jensen, J., Sulman, E.P., Beltinger, C.P., Allen, C., Biegel, J.A., Brodeur, G.M. and White, P.S. 1997. Human Kruppel-related 3 (HKR3): a candidate for the 1p36 neuroblastoma tumour suppressor gene? Eur. J. Cancer 33: 1991-1996.
- Walter, L. and Günther, E. 2000. Physical mapping and evolution of the centromeric class I gene-containing region of the rat MHC. Immunogenetics 51: 829-837.
- Durand, S., Abadie, P., Angeletti, S. and Genti-Raimondi, S. 2003. Identification of multiple differentially expressed messenger RNAs in normal and pathological trophoblast. Placenta 24: 209-218.
- 8. Smith, T.H., Stedronsky, K., Morgan, B. and McGowan, R.A. 2006. Identification and isolation of a BTB-POZ-containing gene expressed in oocytes and early embryos of the zebrafish *Danio rerio*. Genome. 49: 808-814.
- Liu, J. and Stormo, G.D. 2008. Context-dependent DNA recognition code for C<sub>2</sub>H<sub>2</sub> zinc-finger transcription factors. Bioinformatics 24: 1850-1857.

# CHROMOSOMAL LOCATION

Genetic locus: ZBTB48 (human) mapping to 1p36.31.

#### **RESEARCH USE**

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

# SOURCE

ZBTB48 (T-19) is a purified rabbit polyclonal antibody raised against ZBTB48 of human origin.

#### PRODUCT

Each vial contains 50  $\mu g$  IgG in 500  $\mu I$  PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

# **APPLICATIONS**

ZBTB48 (T-19) is recommended for detection of ZBTB48 of mouse, rat, human and dog origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 ZBTB48 siRNA (h): sc-78823, ZBTB48 siRNA (m): sc-155451, ZBTB48 shRNA Plasmid (h): sc-78823-SH, ZBTB48 shRNA Plasmid (m): sc-155451-SH, ZBTB48 shRNA (h) Lentiviral Particles: sc-78823-V and ZBTB48 shRNA (m) Lentiviral Particles: sc-155451-V.

Molecular Weight of ZBTB48: 77 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA

87 70 60 48 36	К – К – – «— ZBTB48 К – К –
21	K –

ZBTB48 (T-19): sc-102167. Western blot analysis of ZBTB48 expression in transfected 293T whole cell

sate.

### **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 or our catalog for detailed protocols and support products.