

# ZNF747 (G-19): sc-249759

## 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. ZNF747 (zinc finger protein 747) is a 536 amino acid protein that localizes to the nucleus and contains 13 C<sub>2</sub>H<sub>2</sub>-type zinc fingers and a KRAB domain. One of several members of the Krüppel C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family, ZNF747 is thought to be involved in transcriptional regulation events. The gene encoding ZNF747 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome.

## REFERENCES

1. Cannizzaro, L.A., Aronson, M.M. and Thiesen, H.J. 1993. Human zinc finger gene ZNF23 (Kox16) maps to a zinc finger gene cluster on chromosome 16q22, and ZNF32 (Kox30) to chromosome region 10q23-q24. *Hum. Genet.* 91: 383-385.
2. Rousseau-Merck, M.F., Hillion, J., Jonveaux, P., Couillin, P., Seite, P., Thiesen, H.J. and Berger, R. 1994. Chromosomal localization of 9 KOX zinc finger genes: physical linkages suggest clustering of KOX genes on chromosomes 12, 16, and 19. *Hum. Genet.* 92: 583-587.
3. Sun, Y., Gou, D.M., Liu, H., Peng, X. and Li, W.X. 2003. The KRAB domain of zinc finger gene ZNF268: a potential transcriptional repressor. *IUBMB Life* 55: 127-131.
4. Rousseau-Merck, M.F., Koczan, D., Legrand, I., Möller, S., Autran, S. and Thiesen, H.J. 2003. The KOX zinc finger genes: genome wide mapping of 368 ZNF PAC clones with zinc finger gene clusters predominantly in 23 chromosomal loci are confirmed by human sequences annotated in Ensembl. *Cytogenet. Genome Res.* 98: 147-153.
5. Nakamura, M., Runko, A.P. and Sagerström, C.G. 2004. A novel subfamily of zinc finger genes involved in embryonic development. *J. Cell. Biochem.* 93: 887-895.
6. Englbrecht, C.C., Schoof, H. and Böhm, S. 2004. Conservation, diversification and expansion of C<sub>2</sub>H<sub>2</sub> zinc finger proteins in the *Arabidopsis thaliana* genome. *BMC Genomics* 5: 39.
7. Li, Y., Du, X., Li, F., Deng, Y., Yang, Z., Wang, Y., Pen, Z., Wang, Z., Yuan, W., Zhu, C. and Wu, X. 2006. A novel zinc-finger protein ZNF436 suppresses transcriptional activities of AP-1 and SRE. *Mol. Biol. Rep.* 33: 287-294.
8. Zhong, Z., Wan, B., Qiu, Y., Ni, J., Tang, W., Chen, X., Yang, Y., Shen, S., Wang, Y., Bai, M., Lang, Q. and Yu, L. 2007. Identification of a novel human zinc finger gene, ZNF438, with transcription inhibition activity. *J. Biochem. Mol. Biol.* 40: 517-524.
9. O'Geen, H., Squazzo, S.L., Iyengar, S., Blahnik, K., Rinn, J.L., Chang, H.Y., Green, R. and Farnham, P.J. 2007. Genome-wide analysis of KAP1 binding suggests autoregulation of KRAB-ZNFs. *PLoS Genet.* 3: e89.

## CHROMOSOMAL LOCATION

Genetic locus: ZNF747 (human) mapping to 16p11.2.

## SOURCE

ZNF747 (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNF747 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-249759 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ZNF747 (G-19) is recommended for detection of ZNF747 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).

Suitable for use as control antibody for ZNF747 siRNA (h): sc-93461, ZNF747 shRNA Plasmid (h): sc-93461-SH and ZNF747 shRNA (h) Lentiviral Particles: sc-93461-V.

Molecular Weight of ZNF747: 62 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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](http://www.scbt.com) or our catalog for detailed protocols and support products.