

# ZNF217 (L-18): sc-55353



The Power to Question

## 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 Krueppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZNF217, also known as ZABC1, is a zinc finger protein belonging to the Krueppel C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family. It localizes to the nucleus and may play a role in transcriptional repression of a variety of genes through the recruitment of co-repressor complexes containing proteins such as CtBP, HDAC1 and HDAC2. In addition, ZNF217 participates in cell differentiation and appears to function as an oncogene. Expression of ZNF217 is amplified in various tumors and overexpression of the protein can attenuate apoptotic signals and lead to epithelial cell immortalization.

## REFERENCES

1. Rooney, P.H., Boonsong, A., McFadyen, M.C., McLeod, H.L., Cassidy, J., Curran, S. and Murray, G.I. 2004. The candidate oncogene ZNF217 is frequently amplified in colon cancer. *J. Pathol.* 204: 282-288.
2. Huang, G., Krig, S., Kowbel, D., Xu, H., Hyun, B., Volik, S., Feuerstein, B., Mills, G.B., Stokoe, D., Yaswen, P. and Collins, C. 2005. ZNF217 suppresses cell death associated with chemotherapy and telomere dysfunction. *Hum. Mol. Genet.* 14: 3219-3225.
3. Sarraf, S., Tejada, R., Abawi, M., Oberst, M., Dennis, T., Simon, K.C. and Blancato, J. 2005. The human ovarian teratocarcinoma cell line PA-1 demonstrates a single translocation: analysis with fluorescence *in situ* hybridization, spectral karyotyping, and bacterial artificial chromosome microarray. *Cancer Genet. Cytogenet.* 161: 63-69.
4. Shimada, M., Imura, J., Kozaki, T., Fujimori, T., Asakawa, S., Shimizu, N. and Kawaguchi, R. 2005. Detection of Her2/Neu, c-Myc and ZNF217 gene amplification during breast cancer progression using fluorescence *in situ* hybridization. *Oncol. Rep.* 13: 633-641.
5. Zhong, M., Li, J., Ding, Y.Q. and Song, L.L. 2006. ZNF217 gene was detected in ovarian serous cystadenocarcinoma by fluorescence *in situ* hybridization. *Zhonghua Yi Xue Yi Chuan Xue Za Zhi* 23: 665-667.
6. Quinlan, K.G., Verger, A., Yaswen, P. and Crossley, M. 2007. Amplification of zinc finger gene 217 (ZNF21) and cancer: when good fingers go bad. *Biochim. Biophys. Acta* 1775: 333-340.
7. Li, P., Maines-Bandiera, S., Kuo, W.L., Guan, Y., Sun, Y., Hills, M., Huang, G., Collins, C.C., Leung, P.C., Gray, J.W. and Auersperg, N. 2007. Multiple roles of the candidate oncogene ZNF217 in ovarian epithelial neoplastic progression. *Int. J. Cancer* 120: 1863-1873.
8. Krig, S.R., Jin, V.X., Bieda, M.C., O'Geen, H., Yaswen, P., Green, R. and Farnham, P.J. 2007. Identification of genes directly regulated by the oncogene ZNF217 using chromatin immunoprecipitation (ChIP)-chip assays. *J. Biol. Chem.* 282: 9703-9712.
9. Cowger, J.J., Zhao, Q., Isovich, M. and Torchia, J. 2007. Biochemical characterization of the zinc-finger protein 217 transcriptional repressor complex: identification of a ZNF217 consensus recognition sequence. *Oncogene* 26: 3378-3386.

## CHROMOSOMAL LOCATION

Genetic locus: Zfp217 (mouse) mapping to 2 H3.

## SOURCE

ZNF217 (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNF217 of mouse 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-55353 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ZNF217 (L-18) is recommended for detection of ZNF217 of mouse and rat 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 ZNF217 siRNA (m): sc-63250; and as shRNA Plasmid control antibody for ZNF217 shRNA Plasmid (m): sc-63250-SH.

Molecular Weight of ZNF217 doublet: 120/130 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.