

ZBRK1 (C-12): sc-47639

BACKGROUND

The transcriptional repressor ZBRK1, also designated zinc finger and BRCA1-interacting protein with a KRAB domain 1 or zinc finger protein 350, belongs to the Krüppel C₂H₂-type zinc-finger protein family of proteins. ZBRK1 localizes mainly to the nucleus and may be associated with the nuclear matrix. It is a widely expressed protein that binds to BRCA1. ZBRK1 plays an important role in transcriptional regulation. Likely targets of gene regulation are DNA damage response genes, which effect the survival and growth control of cells. ZBRK1 contains an N-terminal KRAB domain, a C-terminal BRCA1-binding region and eight central zinc-fingers.

REFERENCES

- Zheng, L., Pan, H., Li, S., Flesken-Nikitin, A., Chen, P.L., Boyer, T.G. and Lee, W.H. 2000 Sequence-specific transcriptional corepressor function for BRCA1 through a novel zinc finger protein, ZBRK1. *Mol. Cell* 6: 757-768.
- Rutter, J.L., Smith, A.M., Davila, M.R., Sigurdson, A.J., Giusti, R.M., Pineda, M.A., Doody, M.M., Tucker, M.A., Greene, M.H., Zhang, J. and Struwing, J.P. 2003. Mutational analysis of the BRCA1-interacting genes ZNF350/ZBRK1 and BRIP1/BACH1 among BRCA1 and BRCA2-negative probands from breast-ovarian cancer families and among early-onset breast cancer cases and reference individuals. *Hum. Mutat.* 22: 121-128.
- Garcia, V., Dominguez, G., Garcia, J.M., Silva, J., Pena, C., Silva, J.M., Carcereny, E., Menendez, J., Espana, P. and Bonilla, F. 2004. Altered expression of the ZBRK1 gene in human breast carcinomas. *J. Pathol.* 202: 224-232.
- Tan, W., Kim, S. and Boyer, T.G. 2004. Tetrameric oligomerization mediates transcriptional repression by the BRCA1-dependent Krüppel-associated box-zinc finger protein ZBRK1. *J. Biol. Chem.* 279: 55153-55160.
- Garcia, V., Garcia, J.M., Pena, C., Silva, J., Dominguez, G., Rodriguez, R., Maximiano, C., Espinosa, R., Espana, P. and Bonilla, F. 2005. The GADD45, ZBRK1 and BRCA1 pathway: quantitative analysis of mRNA expression in colon carcinomas. *J. Pathol.* 206: 92-99.
- Liao, G., Huang, J., Fixman, E.D. and Hayward, S.D. 2005. The Epstein-Barr virus replication protein BBLF2/3 provides an origin-tethering function through interaction with the zinc finger DNA binding protein ZBRK1 and the KAP-1 corepressor. *J. Virol.* 79: 245-256.
- Furuta, S., Wang, J.M., Wei, S., Jeng, Y.M., Jiang, X., Gu, B., Chen, P.L., Lee, E.Y. and Lee, W.H. 2006. Removal of BRCA1/CtIP/ZBRK1 repressor complex on ANG1 promoter leads to accelerated mammary tumor growth contributed by prominent vasculature. *Cancer Cell* 10: 13-24.

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.

CHROMOSOMAL LOCATION

Genetic locus: ZNF350 (human) mapping to 19q13.41.

SOURCE

ZBRK1 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ZBRK1 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-47639 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-47639 X, 200 µg/0.1 ml.

APPLICATIONS

ZBRK1 (C-12) is recommended for detection of ZBRK1 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).

ZBRK1 (C-12) is also recommended for detection of ZBRK1 in additional species, including canine.

Suitable for use as control antibody for ZBRK1 siRNA (h): sc-61824, ZBRK1 shRNA Plasmid (h): sc-61824-SH and ZBRK1 shRNA (h) Lentiviral Particles: sc-61824-V.

ZBRK1 (C-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ZBRK1: 60 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.

RESEARCH USE

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