

KCTD9 (N-14): sc-87184

BACKGROUND

The BTB (broad-complex, tramtrack and bric a brac) domain, also known as the POZ (poxvirus and zinc finger) domain, is an N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C₂H₂-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. KCTD9 (potassium channel tetramerisation domain containing 9) is a 389 amino acid protein that contains one BTB domain, suggesting a possible role as a transcriptional regulator, as well as 3 pentapeptide repeat domains. Increased expression of KCTD9 correlates with disease severity in patients with viral hepatitis B. The gene encoding KCTD9 maps to chromosome 8, which contains about 800 genes. Translocation of portions of chromosome 8 with amplifications of the c-Myc gene are found in some leukemias and lymphomas.

REFERENCES

1. Bardwell, V.J. and Treisman, R. 1994. The POZ domain: a conserved protein-protein interaction motif. *Genes Dev.* 8: 1664-1677.
2. Zollman, S., et al. 1994. The BTB domain, found primarily in zinc finger proteins, defines an evolutionarily conserved family that includes several developmentally regulated genes in *Drosophila*. *Proc. Natl. Acad. Sci. USA* 91: 10717-10721.
3. Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. *Proc. Natl. Acad. Sci. USA* 95: 12123-12128.
4. Rual, J.F., et al. 2005. Towards a proteome-scale map of the human protein-protein interaction network. *Nature* 437: 1173-1178.
5. Kimura, K., et al. 2006. Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. *Genome Res.* 16: 55-65.
6. Mossafa, H., et al. 2006. Non-Hodgkin's lymphomas with Burkitt-like cells are associated with c-Myc amplification and poor prognosis. *Leuk. Lymphoma* 47: 1885-1893.
7. Nusbaum, C., et al. 2006. DNA sequence and analysis of human chromosome 8. *Nature* 439: 331-335.
8. Zhou, Y.Y., et al. 2008. Increased expression of KCTD9, a novel potassium channel related gene, correlates with disease severity in patients with viral hepatitis B. *Zhonghua Gan Zang Bing Za Zhi* 16: 835-839.

CHROMOSOMAL LOCATION

Genetic locus: KCTD9 (human) mapping to 8p21.2; Kctd9 (mouse) mapping to 14 D1.

SOURCE

KCTD9 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of KCTD9 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.

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-87184 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KCTD9 (N-14) is recommended for detection of KCTD9 of mouse, rat and 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); non cross-reactive with other KCTD family members.

KCTD9 (N-14) is also recommended for detection of KCTD9 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for KCTD9 siRNA (h): sc-77518, KCTD9 siRNA (m): sc-146400, KCTD9 shRNA Plasmid (h): sc-77518-SH, KCTD9 shRNA Plasmid (m): sc-146400-SH, KCTD9 shRNA (h) Lentiviral Particles: sc-77518-V and KCTD9 shRNA (m) Lentiviral Particles: sc-146400-V.

Molecular Weight of KCTD9: 43 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214 or mouse brain extract: sc-2253.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.