SANTA CRUZ BIOTECHNOLOGY, INC.

KCTD14 (L-14): sc-241503

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 C_2H_2-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. KCTD14 (potassium channel tetramerisation domain containing 14) is a 255 amino acid protein that contains one BTB (POZ) domain. KCTD14 is encoded by a gene located on human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

1. Bardwell, V.J., et al. 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. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. Am. J. Med. Genet. A 129: 51-61.
5. Rual, J.F., et al. 2005. Towards a proteome-scale map of the human protein-protein interaction network. Nature 437: 1173-1178.
6. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
7. 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.

CHROMOSOMAL LOCATION

Genetic locus: KCTD14 (human) mapping to 11q14.1; Kctd14 (mouse) mapping to 7 E1.

SOURCE

KCTD14 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KCTD14 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-241503 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KCTD14 (L-14) is recommended for detection of KCTD14 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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.

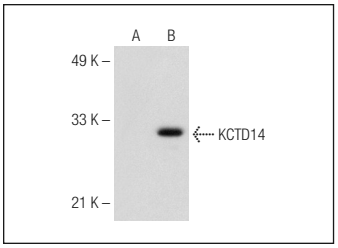
KCTD14 (L-14) is also recommended for detection of KCTD14 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for KCTD14 siRNA (h): sc-96817, KCTD14 siRNA (m): sc-146385, KCTD14 shRNA Plasmid (h): sc-96817-SH, KCTD14 shRNA Plasmid (m): sc-146385-SH, KCTD14 shRNA (h) Lentiviral Particles: sc-96817-V and KCTD14 shRNA (m) Lentiviral Particles: sc-146385-V.

Molecular Weight of KCTD14: 26 kDa.

Positive Controls: KCTD14 (h): 293T Lysate: sc-174405.

DATA



KCTD14 (L-14): sc-241503. Western blot analysis of KCTD14 expression in non-transfected: sc-117752 (**A**) and human KCTD14 transfected: sc-174405 (**B**) 293T whole cell lysates.

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 or our catalog for detailed protocols and support products.