

KCTD1 (C-13): sc-84860

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. KCTD1 (potassium channel tetramerisation domain containing 1), also known as C18orf5, is a 257 amino acid protein that contains one BTB domain, suggesting an involvement in transcriptional control. The gene encoding KCTD1 maps to human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases. There are a variety of diseases associated with defects in chromosome 18-localized genes, some of which include Trisomy 18 (also known as Edwards syndrome), Niemann-Pick disease, hereditary hemorrhagic telangiectasia, erythropoietic protoporphyria and follicular lymphomas.

REFERENCES

- Bardwell, V.J., et al. 1994. The POZ domain: a conserved protein-protein interaction motif. *Genes Dev.* 8: 1664-1677.
- 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.
- Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. *Proc. Natl. Acad. Sci. USA* 95: 12123-12128.
- Gocke, C.B., et al. 2005. Systematic identification and analysis of mammalian small ubiquitin-like modifier substrates. *J. Biol. Chem.* 280: 5004-5012.
- Ding, X.F., et al. 2008. Characterization and expression of a human KCTD1 gene containing the BTB domain, which mediates transcriptional repression and homomeric interactions. *DNA Cell Biol.* 27: 257-265.

CHROMOSOMAL LOCATION

Genetic locus: KCTD1 (human) mapping to 18q11.2; Kctd1 (mouse) mapping to 18 A1.

SOURCE

KCTD1 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of KCTD1 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-84860 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

KCTD1 (C-13) is recommended for detection of KCTD1 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.

Suitable for use as control antibody for KCTD1 siRNA (h): sc-75373, KCTD1 siRNA (m): sc-146380, KCTD1 shRNA Plasmid (h): sc-75373-SH, KCTD1 shRNA Plasmid (m): sc-146380-SH, KCTD1 shRNA (h) Lentiviral Particles: sc-75373-V and KCTD1 shRNA (m) Lentiviral Particles: sc-146380-V.

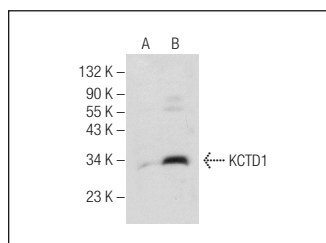
Molecular Weight of KCTD1: 29 kDa.

Positive Controls: KCTD1 (h): 293T Lysate: sc-370663.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



KCTD1 (C-13): sc-84860. Western blot analysis of KCTD1 expression in non-transfected: sc-117752 (A) and human KCTD1 transfected: sc-370663 (B) 293T whole cell lysates.

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.