

KCTD10 (C-13): sc-109304

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. KCTD10 (potassium channel tetramerisation domain containing 10), also known as ULR061 or MSTP028, is a 313 amino acid protein that contains one BTB domain and is highly expressed in lung and moderately expressed in heart and testis. KCTD10 interacts with proliferating cell nuclear antigen (PCNA) and the small subunit of polymerase δ and plays a role in DNA repair, DNA replication and cell-cycle control. KCTD10 expression is regulated by SP1 and AP-2 α .

REFERENCES

- Bardwell, V.J. and Treisman, R. 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.
- Zhou, J., et al. 2005. A novel PDIP1-related protein, KCTD10, that interacts with proliferating cell nuclear antigen and DNA polymerase δ . *Biochim. Biophys. Acta* 1729: 200-203.
- Sun, J.K., et al. 2007. Preparation of mouse KCTD10 antibody and expression analysis of KCTD10 in neuroepithelium of neural tube and dorsal root ganglion. *Sheng Wu Gong Cheng Xue Bao* 23: 1011-1016.
- Junyent, M., et al. 2009. Novel variants at KCTD10, MVK, and MMAB genes interact with dietary carbohydrates to modulate HDL-cholesterol concentrations in the genetics of lipid lowering drugs and diet network study. *Am. J. Clin. Nutr.* 90: 686-694.
- Liu, R., et al. 2009. Transcription factor specificity protein 1 (SP1) and activating protein 2 α (AP-2 α) regulate expression of human KCTD10 gene by binding to proximal region of promoter. *FEBS J.* 276: 1114-1124.

CHROMOSOMAL LOCATION

Genetic locus: KCTD10 (human) mapping to 12q24.11; Kctd10 (mouse) mapping to 5 F.

SOURCE

KCTD10 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of KCTD10 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109304 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KCTD10 (C-13) is recommended for detection of KCTD10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

KCTD10 (C-13) is also recommended for detection of KCTD10 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for KCTD10 siRNA (h): sc-95987, KCTD10 siRNA (m): sc-146381, KCTD10 shRNA Plasmid (h): sc-95987-SH, KCTD10 shRNA Plasmid (m): sc-146381-SH, KCTD10 shRNA (h) Lentiviral Particles: sc-95987-V and KCTD10 shRNA (m) Lentiviral Particles: sc-146381-V.

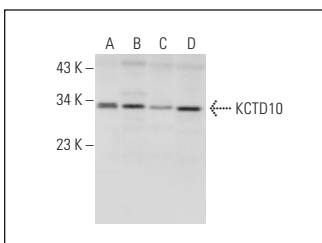
Molecular Weight of KCTD10: 35/33/18 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa nuclear extract: sc-2120 or NIH/3T3 nuclear extract: sc-2138.

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



KCTD10 (C-13): sc-109304. Western blot analysis of KCTD10 expression in Jurkat whole cell lysate (A) and HeLa (B), K-562 (C) and NIH/3T3 (D) nuclear extracts.

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.