

KCTD13 (J-21): sc-133706

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. KCTD13 (potassium channel tetramerisation domain containing 13), also known as polymerase δ -interacting protein 1 (PDIP1 or POLDIP1), is a 329 amino acid protein that contains one BTB domain and is expressed in a wide variety of tissues. KCTD13 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. KCTD13 is induced by tumor necrosis factor α (TNF α) and by IL-6 suggesting KCTD13 provides a link between cytokine activation and DNA replication.

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. He, H., et al. 2001. A tumor necrosis factor alpha- and interleukin 6-inducible protein that interacts with the small subunit of DNA polymerase δ and proliferating cell nuclear antigen. *Proc. Natl. Acad. Sci. USA* 98: 11979-11984.
5. Zhou, J., et al. 2005. Cloning of two rat PDIP1 related genes and their interactions with proliferating cell nuclear antigen. *J. Exp. Zool. Part A Comp. Exp. Biol.* 303: 227-240.
6. Zhou, J., et al. 2005. Genomic organization, promoter characterization and roles of Sp1 and AP-2 in the basal transcription of mouse PDIP1 gene. *FEBS Lett.* 579: 1715-1722.

CHROMOSOMAL LOCATION

Genetic locus: KCTD13 (human) mapping to 16p11.2.

SOURCE

KCTD13 (J-21) is an affinity purified rabbit polyclonal antibody raised against synthetic KCTD13 peptide of human origin.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

RESEARCH USE

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

APPLICATIONS

KCTD13 (J-21) is recommended for detection of KCTD13 of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

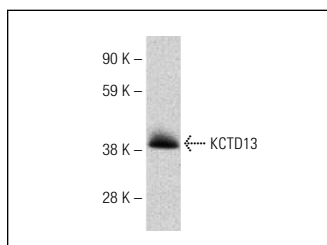
Suitable for use as control antibody for KCTD13 siRNA (h): sc-75375, KCTD13 shRNA Plasmid (h): sc-75375-SH and KCTD13 shRNA (h) Lentiviral Particles: sc-75375-V.

Molecular Weight of KCTD13: 36 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



KCTD13 (J-21): sc-133706. Western blot analysis of KCTD13 expression in human fetal heart tissue extract.

STORAGE

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

MONOS
Satisfaction
Guaranteed

Try **KCTD13 (B-12): sc-393994**, our highly recommended monoclonal alternative to KCTD13 (J-21).