

KCTD13 (h): 293T Lysate: sc-174344

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 α - 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.

PRODUCT

KCTD13 (h): 293T Lysate represents a lysate of human KCTD13 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

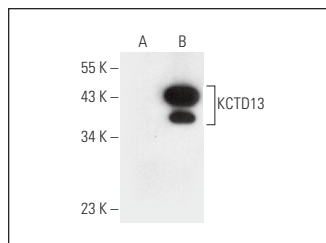
APPLICATIONS

KCTD13 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive KCTD13 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

KCTD13 (B-12): sc-393994 is recommended as a positive control antibody for Western Blot analysis of enhanced human KCTD13 expression in KCTD13 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



KCTD13 (B-12): sc-393994. Western blot analysis of KCTD13 expression in non-transfected: sc-117752 (A) and human KCTD13 transfected: sc-174344 (B) 293T whole cell lysates.

RESEARCH USE

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