

KCTD13 (B-12): sc-393994

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

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3. Ahmad, K.F., Engel, C.K. and Privé, G.G. 1998. Crystal structure of the BTB domain from PLZF. *Proc. Natl. Acad. Sci. USA* 95: 12123-12128.
4. He, H., Tan, C.K., Downey, K.M. and So, A.G. 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., Hu, X., Xiong, X., Liu, X., Liu, Y., Ren, K., Jiang, T., Hu, X. and Zhang, J. 2005. Cloning of two rat PDIP1 related genes and their interactions with proliferating cell nuclear antigen. *J. Exp. Zool. A Comp. Exp. Biol.* 303: 227-240.
6. Zhou, J., Fan, C., Zhong, Y., Liu, Y., Liu, M., Zhou, A., Ren, K. and Zhang, J. 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; Kctd13 (mouse) mapping to 7 F3.

SOURCE

KCTD13 (B-12) is a mouse monoclonal antibody raised against amino acids 33-329 mapping at the C-terminus of KCTD13 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KCTD13 (B-12) is available conjugated to agarose (sc-393994 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393994 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393994 PE), fluorescein (sc-393994 FITC), Alexa Fluor® 488 (sc-393994 AF488), Alexa Fluor® 546 (sc-393994 AF546), Alexa Fluor® 594 (sc-393994 AF594) or Alexa Fluor® 647 (sc-393994 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393994 AF680) or Alexa Fluor® 790 (sc-393994 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

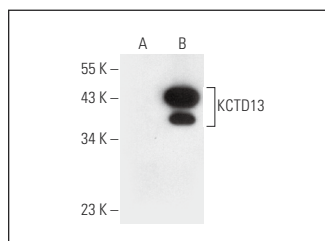
KCTD13 (B-12) is recommended for detection of KCTD13 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for KCTD13 siRNA (h): sc-75375, KCTD13 siRNA (m): sc-75376, KCTD13 shRNA Plasmid (h): sc-75375-SH, KCTD13 shRNA Plasmid (m): sc-75376-SH, KCTD13 shRNA (h) Lentiviral Particles: sc-75375-V and KCTD13 shRNA (m) Lentiviral Particles: sc-75376-V.

Molecular Weight of KCTD13: 36 kDa.

Positive Controls: KCTD13 (h): 293T Lysate: sc-174344.

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.

PROTOCOLS

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