

KCTD14 (A-6): sc-393876

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. KCTD14 (potassium channel tetramerisation domain containing 14) is a 255 amino acid protein that contains one BTB (POZ) domain. KCTD14 is encoded by a gene located on human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

1. Bardwell, V.J., et al. 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. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. *Am. J. Med. Genet. A* 129A: 51-61.

CHROMOSOMAL LOCATION

Genetic locus: KCTD14 (human) mapping to 11q14.1; Kctd14 (mouse) mapping to 7 E1.

SOURCE

KCTD14 (A-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 132-157 within an internal region of KCTD14 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KCTD14 (A-6) is available conjugated to agarose (sc-393876 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393876 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393876 PE), fluorescein (sc-393876 FITC), Alexa Fluor® 488 (sc-393876 AF488), Alexa Fluor® 546 (sc-393876 AF546), Alexa Fluor® 594 (sc-393876 AF594) or Alexa Fluor® 647 (sc-393876 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393876 AF680) or Alexa Fluor® 790 (sc-393876 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393876 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

KCTD14 (A-6) is recommended for detection of KCTD14 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for KCTD14 siRNA (h): sc-96817, KCTD14 siRNA (m): sc-146385, KCTD14 shRNA Plasmid (h): sc-96817-SH, KCTD14 shRNA Plasmid (m): sc-146385-SH, KCTD14 shRNA (h) Lentiviral Particles: sc-96817-V and KCTD14 shRNA (m) Lentiviral Particles: sc-146385-V.

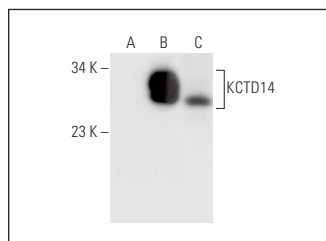
Molecular Weight of KCTD14: 26 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or KCTD14 (h): 293T Lysate: sc-174405.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



KCTD14 (A-6): sc-393876. Western blot analysis of KCTD14 expression in non-transfected 293T: sc-117752 (A), human KCTD14 transfected 293T: sc-174405 (B) and Hep G2 (C) whole cell lysates.

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.

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