

# KCTD5 (C-14): sc-243148

## 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 C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. KCTD5 (potassium channel tetramerisation domain containing 5) is a 234 amino acid protein that localizes predominantly in the cytoplasm but translocates to the nucleus upon interaction with REP proteins. Existing as a homopentamer and consisting of one BTB (POZ) domain, KCTD5 associates with GRASP55, CUL-3 and ubiquitinated proteins. Interaction with CUL-3 suggests KCTD5 functions as a substrate adaptor protein in some E3 ligase complexes.

## 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., Godt, D., Privé, G.G., Couderc, J.L. and Laski, F.A. 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., 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. Weger, S., Hammer, E., Götz, A. and Heilbronn, R. 2007. Identification of a cytoplasmic interaction partner of the large regulatory proteins Rep78/Rep68 of adeno-associated virus type 2 (AAV-2). *Virology* 362: 192-206.
5. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611285. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Bayón, Y., Trinidad, A.G., de la Puerta, M.L., Del Carmen Rodríguez, M., Bogetz, J., Rojas, A., De Pereda, J.M., Rahmouni, S., Williams, S., Reed, J.C., Matsuzawa, S., Crespo, M.S., Mustelin, T. and Alonso, A. 2008. KCTD5, a putative substrate adaptor for cullin3 ubiquitin ligases. *FEBS J.* 275: 3900-3910.
7. Dementieva, I.S., Tereshko, V., McCrossan, Z.A., Solomaha, E., Araki, D., Xu, C., Grigorieff, N. and Goldstein, S.A. 2009. Pentameric assembly of potassium channel tetramerization domain-containing protein 5. *J. Mol. Biol.* 387: 175-191.

## CHROMOSOMAL LOCATION

Genetic locus: KCTD5 (human) mapping to 16p13.3; Kctd5 (mouse) mapping to 17 A3.3.

## SOURCE

KCTD5 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of KCTD5 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 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243148 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KCTD5 (C-14) is recommended for detection of KCTD5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other KCTD family members.

KCTD5 (C-14) is also recommended for detection of KCTD5 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for KCTD5 siRNA (h): sc-93512, KCTD5 siRNA (m): sc-146396, KCTD5 shRNA Plasmid (h): sc-93512-SH, KCTD5 shRNA Plasmid (m): sc-146396-SH, KCTD5 shRNA (h) Lentiviral Particles: sc-93512-V and KCTD5 shRNA (m) Lentiviral Particles: sc-146396-V.

Molecular Weight of KCTD5 pentamer: 115 kDa.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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<sup>™</sup> Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.