



# KCTD16 siRNA (h): sc-91995

## 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. KCTD16 (potassium channel tetramerisation domain containing 16), also known as BTB/POZ domain-containing protein KCTD16, is a 428 amino acid protein that contains one BTB (POZ) domain. An auxiliary subunit of GABAB R1 and GABAB R2, KCTD16 increases agonist potency and alters the G-protein signaling of the receptors by accelerating onset and promoting desensitization.

## 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. Resendes, B.L., et al. 2004. Isolation from cochlea of a novel human intronless gene with predominant fetal expression. *J. Assoc. Res. Otolaryngol.* 5: 185-202.
5. Igarashi, A., et al. 2007. Selection of common markers for bone marrow stromal cells from various bones using real-time RT-PCR: effects of passage number and donor age. *Tissue Eng.* 13: 2405-2417.
6. Suehara, Y., et al. 2008. Pftin as a prognostic biomarker of gastrointestinal stromal tumors revealed by proteomics. *Clin. Cancer Res.* 14: 1707-1717.
7. Kawai, A., et al. 2008. Global protein-expression analysis of bone and soft tissue sarcomas. *Clin. Orthop. Relat. Res.* 466: 2099-2106.
8. Ding, X.F., et al. 2008. Characterization and expression of a human KCTD1 gene containing the BTB domain, which mediates transcriptional repression and homomeric interactions. *DNA Cell Biol.* 27: 257-265.

## CHROMOSOMAL LOCATION

Genetic locus: KCTD16 (human) mapping to 5q31.3.

## PRODUCT

KCTD16 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see KCTD16 shRNA Plasmid (h): sc-91995-SH and KCTD16 shRNA (h) Lentiviral Particles: sc-91995-V as alternate gene silencing products.

For independent verification of KCTD16 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-91995A, sc-91995B and sc-91995C.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

KCTD16 siRNA (h) is recommended for the inhibition of KCTD16 expression in human cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor KCTD16 gene expression knockdown using RT-PCR Primer: KCTD16 (h)-PR: sc-91995-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## 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) for detailed protocols and support products.