

KCTD6 siRNA (h): sc-78307

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. KCTD6 (potassium channel tetramerisation domain containing 6) is a 237 amino acid protein that contains one BTB domain, suggesting a possible role as a transcriptional regulator. The gene encoding KCTD6 maps to chromosome 3, which contains over 1,100 genes. Notably, a chemokine receptor gene cluster and a variety of human cancer related loci reside on chromosome 3. Particular regions of the chromosome 3 short arm are deleted in many types of cancer cells as well.

REFERENCES

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4. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
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CHROMOSOMAL LOCATION

Genetic locus: KCTD6 (human) mapping to 3p14.3.

PRODUCT

KCTD6 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see KCTD6 shRNA Plasmid (h): sc-78307-SH and KCTD6 shRNA (h) Lentiviral Particles: sc-78307-V as alternate gene silencing products.

For independent verification of KCTD6 (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-78307A, sc-78307B and sc-78307C.

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

APPLICATIONS

KCTD6 siRNA (h) is recommended for the inhibition of KCTD6 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 μ M in 66 μ 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 KCTD6 gene expression knockdown using RT-PCR Primer: KCTD6 (h)-PR: sc-78307-PR (20 μ 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 for detailed protocols and support products.