



## cortixin 3 siRNA (h): sc-91693

### BACKGROUND

Cortixin 3, also known as CTXN3 or KABE, is an 81 amino acid single-pass membrane protein that is specifically expressed in kidney and brain. Existing as two isoforms due to alternative splicing, cortixin 3 may mediate extracellular or intracellular signaling in the kidney or brain. Highly conserved in vertebrates, cortixin 3 may play an important role in kidney and brain development. The gene encoding cortixin 3 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to cri-du-chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

### REFERENCES

1. Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. *Am. J. Hum. Genet.* 49: 17-22.
2. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. *Genomics* 16: 726-732.
3. South, S.T., et al. 2006. A new genomic mechanism leading to cri-du-chat syndrome. *Am. J. Med. Genet. A* 140: 2714-2720.
4. Du, H.Y., et al. 2007. Telomerase reverse transcriptase haploinsufficiency and telomere length in individuals with 5p- syndrome. *Aging Cell* 6: 689-697.
5. Wang, H.T., et al. 2007. In silico-initiated cloning and molecular characterization of cortixin 3, a novel human gene specifically expressed in the kidney and brain, and well conserved in vertebrates. *Int. J. Mol. Med.* 20: 501-510.

### CHROMOSOMAL LOCATION

Genetic locus: CTXN3 (human) mapping to 5q23.2.

### PRODUCT

cortixin 3 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 cortixin 3 shRNA Plasmid (h): sc-91693-SH and cortixin 3 shRNA (h) Lentiviral Particles: sc-91693-V as alternate gene silencing products.

For independent verification of cortixin 3 (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-91693A, sc-91693B and sc-91693C.

### 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.

### 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

cortixin 3 siRNA (h) is recommended for the inhibition of cortixin 3 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 cortixin 3 gene expression knockdown using RT-PCR Primer: cortixin 3 (h)-PR: sc-91693-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.