



# cortistatin siRNA (m): sc-39727

## BACKGROUND

Cortistatin is a 155 amino acid protein encoded by the mouse gene Cort. This product of the Cort gene is a neuropeptide with strong structural similarity to somatostatin. It binds to all known Somatostatin receptors, and shares many pharmacological and functional properties with Somatostatin, including the depression of neuronal activity. However, cortistatin also has many properties distinct from Somatostatin, such as induction of slow-wave sleep, apparently by antagonism of the excitatory effects of acetylcholine on the cortex, reduction of locomotor activity and activation of cation selective currents not responsive to Somatostatin.

## REFERENCES

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2. de Lecea, L., et al. 1997. Cloning, mRNA expression, and chromosomal mapping of mouse and human precortistatin. *Genomics* 42: 499-506.
3. Puebla, L., et al. 1999. Processing of rat precortistatin in mouse AtT-20 cells. *J. Neurochem.* 73: 1273-1277.
4. Ejeskär, K., et al. 2000. Fine mapping of the human precortistatin gene (CORT) to neuroblastoma consensus deletion region 1p36.3→p36.2, but absence of mutations in primary tumors. *Cytogenet. Cell Genet.* 89: 62-66.
5. Spier, A.D., et al. 2001. Cortistatin: a member of the Somatostatin neuropeptide family with distinct physiological functions. *Brain Res. Brain Res. Rev.* 33: 228-241.
6. Dalm, V.A., et al. 2003. Expression of Somatostatin, cortistatin, and Somatostatin receptors in human monocytes, macrophages, and dendritic cells. *Am. J. Physiol. Endocrinol. Metab.* 285: E344-E353.
7. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. *Genome Res.* 13: 2265-2270.

## CHROMOSOMAL LOCATION

Genetic locus: Cort (mouse) mapping to 4 E2.

## PRODUCT

cortistatin siRNA (m) is a pool of 2 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 cortistatin shRNA Plasmid (m): sc-39727-SH and cortistatin shRNA (m) Lentiviral Particles: sc-39727-V as alternate gene silencing products.

For independent verification of cortistatin (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-39727A and sc-39727B.

## 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

cortistatin siRNA (m) is recommended for the inhibition of cortistatin expression in mouse 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.

## RESEARCH USE

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