



# cystatin 11 siRNA (m): sc-142753

## BACKGROUND

The cystatins comprise a superfamily of proteins that contain multiple cystatin-like sequences and may function as active cysteine protease inhibitors. Cystatin proteins are divided into three distinct subfamilies, designated type 1 cystatins (stefins), type 2 cystatins and kininogens. The type 2 cystatins are expressed in human fluids and secretions and are encoded by genes that localize to a cystatin locus on chromosome 20. Cystatin 11, also known as SC13 or CST8L, is a 138 amino acid protein that localizes to both the nucleus and the cytoplasm and belongs to the type 2 subfamily of cystatins. Detected in epididymal and epithelial tissue, cystatin 11 functions as an antibacterial protein that is thought to play a role in sperm maturation and fertilization. Multiple isoforms of cystatin 11 exist due to alternative splicing events.

## REFERENCES

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6. Hamil, K.G., et al. 2002. Cystatin 11: a new member of the cystatin type 2 family. *Endocrinology* 143: 2787-2796.
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8. Cornwall, G.A., et al. 2003. A new subgroup of the family 2 cystatins. *Mol. Cell. Endocrinol.* 200: 1-8.
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## CHROMOSOMAL LOCATION

Genetic locus: Cst11 (mouse) mapping to 2 G3.

## PRODUCT

cystatin 11 siRNA (m) is a target-specific 19-25 nt siRNA 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 cystatin 11 shRNA Plasmid (m): sc-142753-SH and cystatin 11 shRNA (m) Lentiviral Particles: sc-142753-V as alternate gene silencing 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

cystatin 11 siRNA (m) is recommended for the inhibition of cystatin 11 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor cystatin 11 gene expression knockdown using RT-PCR Primer: cystatin 11 (m)-PR: sc-142753-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.