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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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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 μ 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 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

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 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 cystatin 11 gene expression knockdown using RT-PCR Primer: cystatin 11 (m)-PR: sc-142753-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.