SANTA CRUZ BIOTECHNOLOGY, INC.

SerpinB8 siRNA (m): sc-76479

BACKGROUND

The serine proteinase inhibitors (serpins) comprise a superfamily of proteins with a diverse set of functions, including the control of blood coagulation, complement activation, programmed cell death and tissue development. SerpinB8 (serpin peptidase inhibitor, clade B (ovalbumin), member 8), also known as P18 or CAP2, is a 374 amino acid protein that localizes to the cytoplasm and belongs to the serine proteinase inhibitor family. Expressed at high levels in lung, liver, heart and skeletal muscle, SerpinB8, which exists as multiple alternatively spliced isoforms, is thought to play a role in platelet aggregation and platelet-regulated pathophysiological responses. The gene encoding SerpinB8 maps to a cluster of Serpin genes on human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases.

REFERENCES

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3. Bartuski, A.J., et al. 1997. Cytoplasmic antiproteinase 2 (PI8) and bomapin (PI10) map to the serpin cluster at 18q21.3. Genomics 43: 321-328.
4. Dahlen, J.R., et al. 1998. Inhibition of soluble recombinant furin by human proteinase inhibitor 8. J. Biol. Chem. 273: 1851-1854.
5. Strik, M.C., et al. 2002. Distribution of the human intracellular serpin protease inhibitor 8 in human tissues. J. Histochem. Cytochem. 50: 1443-1454.
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7. Pike, R.N., et al. 2005. Control of the coagulation system by serpins. Getting by with a little help from glycosaminoglycans. FEBS J. 272: 4842-4851.
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CHROMOSOMAL LOCATION

Genetic locus: Serpinb8 (mouse) mapping to 1 E2.1.

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.

PRODUCT

SerpinB8 siRNA (m) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SerpinB8 shRNA Plasmid (m): sc-76479-SH and SerpinB8 shRNA (m) Lentiviral Particles: sc-76479-V as alternate gene silencing products.

For independent verification of SerpinB8 (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-76479A, sc-76479B and sc-76479C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SerpinB8 siRNA (m) is recommended for the inhibition of SerpinB8 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 µM in 66 µl. 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 SerpinB8 gene expression knockdown using RT-PCR Primer: SerpinB8 (m)-PR: sc-76479-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.