

SerpinA2 siRNA (h): sc-92094

BACKGROUND

The serine proteinase inhibitors (serpins) compose a superfamily of proteins with a diverse set of functions, including the control of blood coagulation, complement activation, programmed cell death and development. Serpins are secreted glycoproteins that contain a stretch of peptide that mimics a true substrate for a corresponding serine protease. SerpinA2 (serpin peptidase inhibitor, clade A (α -1 antiproteinase, antitrypsin), member 2), also known as putative α -1-antitrypsin-related protein, PIL, ATR, ARGS or psiATR, is a 420 amino acid protein that likely functions as a serine protease inhibitor. A member of the serpin family, SerpinA2 is encoded by a gene that maps to human chromosome 14q32.12.

REFERENCES

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4. Sefton, L., et al. 1990. A physical map of the human PI and AACT genes. *Genomics* 7: 382-388.
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CHROMOSOMAL LOCATION

Genetic locus: SERPINA2P (human) mapping to 14q32.13.

PRODUCT

SerpinA2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SerpinA2 shRNA Plasmid (h): sc-92094-SH and SerpinA2 shRNA (h) Lentiviral Particles: sc-92094-V as alternate gene silencing products.

For independent verification of SerpinA2 (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-92094A, sc-92094B and sc-92094C.

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

SerpinA2 siRNA (h) is recommended for the inhibition of SerpinA2 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 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 SerpinA2 gene expression knockdown using RT-PCR Primer: SerpinA2 (h)-PR: sc-92094-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.