SANTA CRUZ BIOTECHNOLOGY, INC.

Serpina6 siRNA (m): sc-76475

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. SerpinA6, also known as CBG or Transcortin, is a 405 amino acid α-globulin secreted protein that belongs to the serpin family. Synthesized in the liver and present in glycocorticoid responsive cells, Serpina6 functions as the primary transport protein for progestins and glucorticoids within the blood. Additionally, SerpinA6 has corticosteroid-binding properties through which it can regulate the physiological binding of serum cortisol within the cell. Defects in the gene encoding Serpina6 are the cause of corticosteroid-binding globulin deficiency (CBG deficiency), a rare disorder characterized by reduced corticosteroid-binding rates that result in hypo/hypertension and muscle fatigue.

REFERENCES

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6. Seixas, S., Suriano, G., Carvalho, F., Seruca, R., Rocha, J. and Di Rienzo, A. 2007. Sequence diversity at the proximal 14q32.1 SERPIN subcluster: evidence for natural selection favoring the pseudogenization of SERPINA2. Mol. Biol. Evol. 24: 587-598.
7. Buss, C., Schuelter, U., Hesse, J., Moser, D., Phillips, D.I., Hellhammer, D. and Meyer, J. 2007. Haploinsufficiency of the SERPINA6 gene is associated with severe muscle fatigue: a *de novo* mutation in corticosteroid-binding globulin deficiency. J. Neural. Transm. 114: 563-569.

CHROMOSOMAL LOCATION

Genetic locus: Serpina6 (mouse) mapping to 12 E.

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

Serpina6 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 Serpina6 shRNA Plasmid (m): sc-76475-SH and Serpina6 shRNA (m) Lentiviral Particles: sc-76475-V as alternate gene silencing products.

For independent verification of Serpina6 (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-76475A, sc-76475B and sc-76475C.

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

Serpina6 siRNA (m) is recommended for the inhibition of Serpina6 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 Serpina6 gene expression knockdown using RT-PCR Primer: Serpina6 (m)-PR: sc-76475-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.