

SerpinB12 siRNA (m): sc-153366

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. SerpinB12 appears to be an inhibitor of trypsin-like serine proteinases, including mast cell tryptases.

REFERENCES

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2. Gettins, P.G. 2002. Serpin structure, mechanism, and function. *Chem. Rev.* 102: 4751-4804.
3. Carrell, R.W., et al. 2003. How serpins change their fold for better and for worse. *Biochem. Soc. Symp.* 70: 163-178.
4. van Gent, D., et al. 2003. Serpins: structure, function and molecular evolution. *Int. J. Biochem. Cell Biol.* 35: 1536-1547.
5. Silverman, G.A., et al. 2004. Human clade B serpins (ov-serpins) belong to a cohort of evolutionarily dispersed intracellular proteinase inhibitor clades that protect cells from promiscuous proteolysis. *Cell. Mol. Life Sci.* 61: 301-325.
6. Patston, P.A., et al. 2004. Serpin-ligand interactions. *Methods* 32: 93-109.
7. Kummer, J.A., et al. 2004. Production, characterization, and use of serpin antibodies. *Methods* 32: 141-149.
8. LocusLink Report (LocusID: 89777). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: Serpinb12 (mouse) mapping to 1 E2.1.

PRODUCT

SerpinB12 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 SerpinB12 shRNA Plasmid (m): sc-153366-SH and SerpinB12 shRNA (m) Lentiviral Particles: sc-153366-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

SerpinB12 siRNA (m) is recommended for the inhibition of SerpinB12 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 SerpinB12 gene expression knockdown using RT-PCR Primer: SerpinB12 (m)-PR: sc-153366-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.