



Polyserase-2 siRNA (m): sc-76198

BACKGROUND

Polyserase-2, also known as PRSS36, is an 855 amino acid secreted protein that localizes to the extracellular space and contains three peptidase S₁ domains. Expressed in heart, liver, placenta, skeletal muscle and fetal kidney, Polyserase-2 functions as a serine protease that preferentially hydrolyzes the peptides N-t-Boc-Gln-Ala-Arg-AMC and N-t-Boc-Gln-Gly-Arg-AMC and is inhibited by 4-(2-aminoethyl)-benzenesulfonyl fluoride. Polyserase-2 is subject to post-translational N-glycosylation and is expressed in lung and colon adenocarcinomas, suggesting a role in tumor formation. The gene encoding Polyserase-2 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome.

REFERENCES

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2. Oh, J.H., Yang, J.O., Hahn, Y., Kim, M.R., Byun, S.S., Jeon, Y.J., Kim, J.M., Song, K.S., Noh, S.M., Kim, S., Yoo, H.S., Kim, Y.S. and Kim, N.S. 2005. Transcriptome analysis of human gastric cancer. *Mamm. Genome* 16: 942-954.
3. Cal, S., Peinado, J.R., Llamazares, M., Quesada, V., Moncada-Pazos, A., Garabaya, C. and López-Otín, C. 2006. Identification and characterization of human Polyserase-3, a novel protein with tandem serine-protease domains in the same polypeptide chain. *BMC Biochem.* 7: 9.
4. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610560. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Cal, S., Moncada-Pazos, A. and Lopez-Otin, C. 2007. Expanding the complexity of the human degradome: polyserases and their tandem serine protease domains. *Front. Biosci.* 12: 4661-4669.

CHROMOSOMAL LOCATION

Genetic locus: Prss36 (mouse) mapping to 7 F3.

PRODUCT

Polyserase-2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Polyserase-2 shRNA Plasmid (m): sc-76198-SH and Polyserase-2 shRNA (m) Lentiviral Particles: sc-76198-V as alternate gene silencing products.

For independent verification of Polyserase-2 (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-76198A, sc-76198B and sc-76198C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support 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

Polyserase-2 siRNA (m) is recommended for the inhibition of Polyserase-2 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 Polyserase-2 gene expression knockdown using RT-PCR Primer: Polyserase-2 (m)-PR: sc-76198-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.