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### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

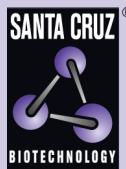
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# parathymosin siRNA (m): sc-152023



The Power to Question

## BACKGROUND

Parathymosin (PTMS) is a 102 amino acid protein that belongs to the pro-parathymosin family. By blocking the effect of prothymosin  $\alpha$  which confers resistance to certain opportunistic infections, parathymosin may mediate immune function. The gene that encodes parathymosin consists of approximately 4,578 bases and maps to human chromosome 12p13.31. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome is also linked to chromosome 12 and is caused by a mutant form of PTPN11 gene product, SH-PTP2. Chromosome 12 is home to a homeobox gene cluster, which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster, encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction.

## REFERENCES

- Clinton, M., Frangou-Lazaridis, M., Panneerselvam, C. and Horecker, B.L. 1989. The sequence of human parathymosin deduced from a cloned human kidney cDNA. *Biochem. Biophys. Res. Commun.* 158: 855-862.
- Szabo, P., Clinton, M., Macera, M. and Horecker, B.L. 1989. Localization of the gene coding for parathymosin to chromosome 17 in humans. *Cytogenet. Cell Genet.* 50: 91-92.
- Online Mendelian Inheritance in Man, OMIM™. 1989. Johns Hopkins University, Baltimore, MD. MIM Number: 168440. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Clinton, M., Graeve, L., el-Dorry, H., Rodriguez-Boulan, E. and Horecker, B.L. 1991. Evidence for nuclear targeting of prothymosin and parathymosin synthesized *in situ*. *Proc. Natl. Acad. Sci. USA* 88: 6608-6612.
- Kondili, K., Tsolas, O. and Papamarcaki, T. 1996. Selective interaction between parathymosin and Histone H1. *Eur. J. Biochem.* 242: 67-74.
- Okamoto, K. and Isohashi, F. 2000. Purification and primary structure of a macromolecular-translocation inhibitor II of glucocorticoid-receptor binding to nuclei from rat liver. Inhibitor II is the 11.5-kDa Zn<sup>2+</sup>-binding protein (parathymosin). *Eur. J. Biochem.* 267: 155-162.
- Vareli, K., Frangou-Lazaridis, M., van der Kraan, I., Tsolas, O. and van Driel, R. 2000. Nuclear distribution of prothymosin  $\alpha$  and parathymosin: evidence that prothymosin  $\alpha$  is associated with RNA synthesis processing and parathymosin with early DNA replication. *Exp. Cell Res.* 257: 152-161.
- Hannappel, E. and Huff, T. 2003. The thymosins. Prothymosin  $\alpha$ , parathymosin, and  $\beta$ -thymosins: structure and function. *Vitam. Horm.* 66: 257-296.
- Martic, G., Karetou, Z., Kefala, K., Politou, A.S., Clapier, C.R., Straub, T. and Papamarcaki, T. 2005. Parathymosin affects the binding of linker Histone H1 to nucleosomes and remodels chromatin structure. *J. Biol. Chem.* 280: 16143-16150.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## CHROMOSOMAL LOCATION

Genetic locus: Ptms (mouse) mapping to 6 F2.

## PRODUCT

parathymosin 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see parathymosin shRNA Plasmid (m): sc-152023-SH and parathymosin shRNA (m) Lentiviral Particles: sc-152023-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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

parathymosin siRNA (m) is recommended for the inhibition of parathymosin 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  $\mu$ M in 66  $\mu$ 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 parathymosin gene expression knockdown using RT-PCR Primer: parathymosin (m)-PR: sc-152023-PR (20  $\mu$ 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.