



PRSS33 siRNA (m): sc-152527

BACKGROUND

PRSS33 (protease, serine, 33), also known as serine protease EOS, is a 280 amino acid secreted protein that belongs to the peptidase S1 family. Containing one peptidase S1 domain, PRSS33 has amidolytic activity and cleaves its targets before Arg residues. PRSS33 is primarily expressed in macrophages, with high levels of expression found in peripheral leukocytes, ovary, retina, spleen and stomach. Lower levels of expression occur in thymus, uterus, platelets and some brain tissues, including thalamus and fetal brain. PRSS33 gets upregulated by phorbol myristate acetate (PMA) and is encoded by a gene mapping to human chromosome 16p13.3 and mouse chromosome 17 A3.3.

REFERENCES

1. Chen, C., Darrow, A.L., Qi, J.S., D'Andrea, M.R. and Andrade-Gordon, P. 2003. A novel serine protease predominately expressed in macrophages. *Biochem. J.* 374: 97-107.
2. Martin, J., Han, C., Gordon, L.A., Terry, A., Prabhakar, S., She, X., Xie, G., Hellsten, U., Chan, Y.M., Altherr, M., Couronne, O., Aerts, A., Bajorek, E., Black, S., et al. 2004. The sequence and analysis of duplication-rich human chromosome 16. *Nature* 432: 988-994.
3. Wong, G.W. and Stevens, R.L. 2005. Identification of a subgroup of glycosylphosphatidylinositol-anchored tryptases. *Biochem. Biophys. Res. Commun.* 336: 579-584.
4. Puente, X.S., Gutierrez-Fernández, A., Ordóñez, G.R., Hillier, L.W. and López-Otín, C. 2005. Comparative genomic analysis of human and chimpanzee proteases. *Genomics* 86: 638-647.
5. Online Mendelian Inheritance in Man, OMIM™. 2011. Johns Hopkins University, Baltimore, MD. MIM Number: 613797. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: Prss33 (mouse) mapping to 17 A3.3.

PRODUCT

PRSS33 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 PRSS33 shRNA Plasmid (m): sc-152527-SH and PRSS33 shRNA (m) Lentiviral Particles: sc-152527-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

PRSS33 siRNA (m) is recommended for the inhibition of PRSS33 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 PRSS33 gene expression knockdown using RT-PCR Primer: PRSS33 (m)-PR: sc-152527-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.