SERPINE2 siRNA – Glia-Derived Nexin (Rat)

PRODUCT OVERVIEW

Product Name	SERPINE2, siRNA
Full Product Name	SERPINE2 siRNA (Rat)
Product Gene Name	SERPINE2 sirna
Product Synonym Names	PI7; PN1; Glia-derived nexin; GDN; Peptidase inhibitor 7; PI-7; Protease nexin 1; PN-1; Protease nexin I; Serpin E2
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	SERPINE2 siRNA (Rat) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	44,063 Da
3D Structure	ModBase 3D Structure for P07092
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of rat SERPINE2 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for SERPINE2 sirna	RNA Interference (RNAi)
Related Product Information for SERPINE2 sirna	MBS8234236 is an siRNA targeting SERPINE2. Also known as SERPINE2 siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit SERPINE2 expression using RNA interference
Other Notes	Small volumes of SERPINE2 sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SERPINE2. It may not necessarily be applicable to this product.

NCBI GI #	158138559

NCBI GeneID	29366
NCBI Accession #	NP_062070.1
UniProt Primary Accession #	P07092
UniProt Related Accession #	P07092
GenBank Nucleotide #	NM_019197.1
NCBI Official Full Name	glia-derived nexin
NCBI Official Synonym Full Names	serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2
NCBI Official Symbol	Serpine2
NCBI Official Synonym Symbols	PI-7; Pn-1; Spin4; Gdnpn1
UniProt Protein Name	Glia-derived nexin
UniProt Synonym Protein Names	Peptidase inhibitor 7; PI-7; Protease nexin 1; PN-1; Protease nexin I; Serpin E2
Protein Family	Glia-derived nexin
UniProt Gene Name	Serpine2
UniProt Synonym Gene Names	Pi7; Pn1; GDN; PI-7; PN-1
UniProt Entry Name	GDN_RAT
NCBI Protein Information	glia-derived nexin
NCBI Summary for SERPINE2	displays neurite promoting activity and serine protease inhibitory activity [RGD, Feb 2006]
UniProt Comments for SERPINE2	SERPINE2: Serine protease inhibitor with activity toward thrombin, trypsin, and urokinase. Promotes neurite extension by inhibiting thrombin. Binds heparin. Belongs to the serpin family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted; Inhibitor; Secreted, signal peptide Cellular Component: extracellular matrix; extracellular space; extrinsic to external side of plasma membrane; cell soma; membrane; cell; extracellular region; neuromuscular junction; cytosol; vesicle Molecular Function: serine-type endopeptidase inhibitor activity; heparin binding; glycosaminoglycan binding; receptor binding Biological Process: negative regulation of proteolysis; regulation of synaptic transmission, glutamatergic; secretory granule organization and biogenesis; cerebellar granular layer morphogenesis; negative regulation of peptidase activity; negative regulation of blood coagulation; mating plug formation; detection of mechanical stimulus involved in sensory perception; negative regulation of cell proliferation; response to radiation; negative regulation of smoothened signaling pathway; response to wounding; negative regulation of cell growth; negative regulation of protein catabolic process; blood coagulation; regulation of timing of cell differentiation; embryo implantation; secretion by cell; positive regulation of astrocyte differentiation; negative regulation of phosphoinositide 3-kinase cascade
Research Articles on SERPINE2	**1.** In cerebellum, thrombin can activate PAR-1 expression after ICH, and PN-1 appears quickly after Intracerebral hemorrhage in order to control the deleterious effect of thrombin.
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