PTN siRNA – Pleiotrophin (Human)

PRODUCT OVERVIEW

Product Name	PTN, siRNA
Full Product Name	PTN siRNA (Human)
Product Gene Name	PTN sirna
Product Synonym Names	HBNF1; NEGF1; Pleiotrophin; PTN; Heparin-binding brain mitogen; HBBM; Heparin-binding growth factor 8; HBGF-8; Heparin-binding growth-associated molecule; HB-GAM; Heparin-binding neurite outgrowth-promoting factor 1; HBNF-1; Osteoblast-specific factor 1; OSF-1
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	PTN siRNA (Human) 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	18,942 Da
OMIM	162095
3D Structure	ModBase 3D Structure for P21246
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 human PTN 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 PTN sirna	RNA Interference (RNAi)
Related Product Information for PTN sirna	MBS8216013 is an siRNA targeting PTN. Also known as PTN siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit PTN expression using RNA interference
Other Notes	Small volumes of PTN 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 PTN. It may not necessarily be applicable to this product.

NCBI GI #	4506281
NCBI GeneID	5764
NCBI Accession #	NP_002816.1
UniProt Primary Accession #	P21246
UniProt Secondary Accession #	Q5U0B0; Q6ICQ5; Q9UCC6
UniProt Related Accession #	P21246
GenBank Nucleotide #	NM_002825.5
NCBI Official Full Name	pleiotrophin
NCBI Official Synonym Full Names	pleiotrophin
NCBI Official Symbol	PTN
NCBI Official Synonym Symbols	HARP; HBNF; HBGF8; NEGF1
UniProt Protein Name	Pleiotrophin
UniProt Synonym Protein Names	Heparin-binding brain mitogen; HBBM; Heparin-binding growth factor 8; HBGF-8; Heparin-binding growth-associated molecule; HB-GAM; Heparin-binding neurite outgrowth-promoting factor 1; HBNF-1; Osteoblast-specific factor 1; OSF-1
Protein Family	Pleiotrophin
UniProt Gene Name	PTN
UniProt Synonym Gene Names	HBNF1; NEGF1; PTN; HBBM; HBGF-8; HB-GAM; HBNF-1; OSF-1
UniProt Entry Name	PTN_HUMAN
NCBI Protein Information	pleiotrophin
UniProt Comments for PTN	PTN: Secreted growth factor that induces neurite outgrowth and which is mitogenic for fibroblasts, epithelial, and endothelial cells. Binds anaplastic lymphoma kinase (ALK) which induces MAPK pathway activation, an important step in the anti- apoptotic signaling of PTN and regulation of cell proliferation. Belongs to the pleiotrophin family. Protein type: Secreted, signal peptide; Secreted Chromosomal Location of Human Ortholog: 7q33 Cellular Component: extracellular space; endoplasmic reticulum Molecular Function: heparin binding; growth factor activity; protein phosphatase inhibitor activity Biological Process: nervous system development; positive regulation of cell division; negative regulation of catalytic activity; positive regulation of cell proliferation; learning; transmembrane receptor protein tyrosine phosphatase signaling pathway; bone mineralization
Research Articles on PTN	**1.** PTN expression in glioma was higher than in paratumor tissues. Overexpression was associated with the WHO grade, low Karnofsky score, time to recurrence, and poor survival. Co-expression of midkine and PTN had a worse prognosis than either alone.
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