LHX4 siRNA – LIM/Homeobox Protein Lhx4 (Mouse)

PRODUCT OVERVIEW

Product Name	LHX4, siRNA
Full Product Name	LHX4 siRNA (Mouse)
Product Gene Name	LHX4 sirna
Product Synonym Names	GSH-4; GSH4; LIM/homeobox protein Lhx4; LIM homeobox protein 4
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	LHX4 siRNA (Mouse) 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	43,078 Da
3D Structure	ModBase 3D Structure for P53776
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 mouse LHX4 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 LHX4 sirna	RNA Interference (RNAi)
Related Product Information for LHX4 sirna	MBS8232350 is an siRNA targeting LHX4. Also known as LHX4 siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit LHX4 expression using RNA interference
Other Notes	Small volumes of LHX4 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 LHX4. It may not necessarily be applicable to this product.

NCBI GI #	190684642

NCBI GeneID	16872
NCBI Accession #	NP_034842.2
UniProt Primary Accession #	P53776
UniProt Secondary Accession #	O08916; Q810K7; Q9R280
UniProt Related Accession #	P53776
GenBank Nucleotide #	NM_010712.2
NCBI Official Full Name	LIM/homeobox protein Lhx4
NCBI Official Synonym Full Names	LIM homeobox protein 4
NCBI Official Symbol	Lhx4
NCBI Official Synonym Symbols	Gsh4; Gsh-4; A330062J17Rik
UniProt Protein Name	LIM/homeobox protein Lhx4
Protein Family	LIM/homeobox protein
UniProt Gene Name	Lhx4
UniProt Synonym Gene Names	Gsh-4; Gsh4; LIM homeobox protein 4
UniProt Entry Name	LHX4_MOUSE
NCBI Protein Information	LIM/homeobox protein Lhx4
UniProt Comments for LHX4	LHX4: May play a critical role in the development of respiratory control mechanisms and in the normal growth and maturation of the lung. Defects in LHX4 are the cause of pituitary hormone deficiency combined type 4 (CPHD4); also known as short stature pituitary and cerebellar defects and small sella turcica. The disorder is characterized by short stature, pituitary and cerebellar defects, and small transverse depression crossing the midline on the superior surface of the body of the sphenoid bone which houses the pituitary gland. A chromosomal aberration involving LHX4 may be a cause of acute lymphoblastic leukemia. Translocation t(1;14)(q25;q32) with IGHG1. Protein type: DNA-binding; Oncoprotein Cellular Component: intracellular; nucleus Molecular Function: DNA binding; zinc ion binding; sequence-specific DNA binding; metal ion binding Biological Process: organ morphogenesis; regulation of transcription, DNA-dependent; transcription, DNA-dependent; medial motor column neuron differentiation; motor axon guidance; placenta development; negative regulation of apoptosis
Research Articles on LHX4	**1.** X-ray crystal- and small-angle x-ray scattering-derived solution structures of an Lhx4.Isl2 complex exhibit many similarities with that of Lhx3.Isl1; structural differences supported by mutagenic studies reveal differences in the mechanisms of binding.
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