IRX5 siRNA – Iroquois-Class Homeodomain Protein IRX-5 (Mouse)

PRODUCT OVERVIEW

Product Name	IRX5, siRNA
Full Product Name	IRX5 siRNA (Mouse)
Product Gene Name	IRX5 sirna
Product Synonym Names	IRXB2; Iroquois-class homeodomain protein IRX-5; Homeodomain protein IRXB2; Iroquois homeobox protein 5
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	IRX5 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	50,755 Da
3D Structure	ModBase 3D Structure for Q9JKQ4
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 IRX5 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 IRX5 sirna	RNA Interference (RNAi)
Related Product Information for IRX5 sirna	MBS8215882 is an siRNA targeting IRX5. Also known as IRX5 siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit IRX5 expression using RNA interference
Other Notes	Small volumes of IRX5 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 IRX5. It may not necessarily be applicable to this product.

NCBI GI #	9055250

NCBI GeneID	54352
NCBI Accession #	NP_061296.1
UniProt Primary Accession #	Q9JKQ4
UniProt Secondary Accession #	Q80WV4; Q9JLL5
UniProt Related Accession #	Q9JKQ4
GenBank Nucleotide #	NM_018826.2
NCBI Official Full Name	iroquois-class homeodomain protein IRX-5
NCBI Official Synonym Full Names	Iroquois related homeobox 5 (Drosophila)
NCBI Official Symbol	Irx5
UniProt Protein Name	Iroquois-class homeodomain protein IRX-5
UniProt Synonym Protein Names	Homeodomain protein IRXB2; Iroquois homeobox protein 5
Protein Family	Iroquois-class homeodomain protein
UniProt Gene Name	Irx5
UniProt Synonym Gene Names	Irxb2
UniProt Entry Name	IRX5_MOUSE
NCBI Protein Information	iroquois-class homeodomain protein IRX-5
UniProt Comments for IRX5	IRX5: Establishes the cardiac repolarization gradient by its repressive actions on the KCND2 potassium-channel gene. Required for retinal cone bipolar cell differentiation. May regulate contrast adaptation in the retina and control specific aspects of visual function in circuits of the mammalian retina. Could be involved in the regulation of both the cell cycle and apoptosis in prostate cancer cells. Involved in craniofacial and gonadal development. Modulates the migration of progenitor cell populations in branchial arches and gonads by repressing CXCL12. Defects in IRX5 are the cause of Hamamy syndrome (HMMS). A sydrome characterized by severe hypertelorism, upslanting palpebral fissures, brachycephaly, abnormal ears, sloping shoulders, enamel hypoplasia, and osteopenia with repeated fractures. Additional features include myopia, mild to moderate sensorineural hearing loss, gonadal anomalies, and borderline intelligence. Belongs to the TALE/IRO homeobox family. Protein type: DNA-binding Cellular Component: nucleus Molecular Function: DNA binding; sequence-specific DNA binding Biological Process: visual perception; transcription, DNA-dependent; regulation of transcription, DNA-dependent; regulation of gene expression; regulation of heart rate; response to stimulus; neuron maturation; cell development; retinal bipolar neuron differentiation
Research Articles on IRX5	**1.** Irx3 and Irx5 (Irx3/5) are essential in the initiating limb bud to specify progenitors of the femur, tibia, and digit 1.
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