TBX3 siRNA – T-Box Transcription Factor TBX3 Isoform 1 (Human)

PRODUCT OVERVIEW

Product Name	TBX3, siRNA
Full Product Name	TBX3 siRNA (Human)
Product Gene Name	TBX3 sirna
Product Synonym Names	T-box transcription factor TBX3; T-box protein 3
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	TBX3 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	– Da
OMIM	181450
3D Structure	ModBase 3D Structure for O15119
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 TBX3 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 TBX3 sirna	RNA Interference (RNAi)
Related Product Information for TBX3 sirna	MBS8200452 is an siRNA targeting TBX3. Also known as TBX3 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit TBX3 expression using RNA interference
Other Notes	Small volumes of TBX3 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 TBX3. It may not necessarily be applicable to this product.

NCBI GI #	47419905
NCBI GeneID	6926
NCBI Accession #	NP_005987.3
UniProt Primary Accession #	O15119
UniProt Secondary Accession #	Q8TB20; Q9UKF8
UniProt Related Accession #	O15119
GenBank Nucleotide #	NM_005996.3
NCBI Official Full Name	T-box transcription factor TBX3 isoform 1
NCBI Official Synonym Full Names	T-box 3
NCBI Official Symbol	TBX3
NCBI Official Synonym Symbols	UMS; XHL; TBX3-ISO
UniProt Protein Name	T-box transcription factor TBX3
Protein Family	T-box transcription factor
UniProt Gene Name	TBX3
UniProt Synonym Gene Names	T-box protein 3
UniProt Entry Name	TBX3_HUMAN
NCBI Protein Information	T-box transcription factor TBX3
NCBI Summary for TBX3	This gene is a member of a phylogenetically conserved family of genes that share a common DNA-binding domain, the T-box. T-box genes encode transcription factors involved in the regulation of developmental processes. This protein is a transcriptional repressor and is thought to play a role in the anterior/posterior axis of the tetrapod forelimb. Mutations in this gene cause ulnar-mammary syndrome, affecting limb, apocrine gland, tooth, hair, and genital development. Alternative splicing of this gene results in three transcript variants encoding different isoforms; however, the full length nature of one variant has not been determined. [provided by RefSeq, Jul 2008]
UniProt Comments for TBX3	TBX3: Transcriptional repressor involved in developmental processes. Probably plays a role in limb pattern formation. Defects in TBX3 are the cause of ulnar-mammary syndrome (UMS). UMS is characterized by ulnar ray defects, obesity, hypogenitalism, delayed puberty, hypoplasia of nipples and apocrine glands. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Transcription factor; DNA-binding Chromosomal Location of Human Ortholog: 12q24.21 Cellular Component: nucleus Molecular Function: protein binding; sequence-specific DNA binding Biological Process: embryonic forelimb morphogenesis; limbic system development; positive regulation of transcription, DNA-dependent; negative regulation of epithelial cell differentiation; palate development; negative regulation of transcription from RNA polymerase II promoter; female genitalia development; forelimb morphogenesis; mammary gland development; determination of anterior/posterior axis, embryo; positive regulation of cell proliferation; male genitalia development; heart looping; skeletal development; luteinizing hormone secretion; blood vessel development; specification of organ position; transcription, DNA-dependent; in utero embryonic development; stem cell maintenance; cell aging; positive regulation of cell cycle; regulation of transcription from RNA polymerase II promoter; organ morphogenesis; mesoderm morphogenesis; follicle-stimulating hormone secretion; embryonic digit morphogenesis; negative regulation of transcription, DNA-dependent; negative regulation of myoblast differentiation; negative regulation of apoptosis Disease: Ulnar-mammary Syndrome

Research Articles on TBX3	**1.** Data show that the down-regulation of T-box transcription factor TBX2 by transforming growth factor beta I (TGF-beta1) is mediated by T-box transcription factor TBX3.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/human-sirna/tbx3/8200452