CTSE siRNA – Cathepsin E Isoform a Preproprotein (Human)

PRODUCT OVERVIEW

Product Name	CTSE, siRNA
Full Product Name	CTSE siRNA (Human)
Product Gene Name	CTSE sirna
Product Synonym Names	Cathepsin E
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	CTSE 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	39,553 Da
OMIM	116890
3D Structure	ModBase 3D Structure for P14091
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 CTSE 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 CTSE sirna	RNA Interference (RNAi)
Related Product Information for CTSE sirna	MBS8223371 is an siRNA targeting CTSE. Also known as CTSE siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit CTSE expression using RNA interference
Other Notes	Small volumes of CTSE 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 CTSE. It may not necessarily be applicable to this product.

NCBI GI #	4503145
NCBI GeneID	1510
NCBI Accession #	NP_001901.1
UniProt Primary Accession #	P14091
UniProt Secondary Accession #	Q5TZ01; Q5TZ02; Q9NY58; Q9UCE3; Q9UCE4
UniProt Related Accession #	P14091
GenBank Nucleotide #	NM_001910.3
NCBI Official Full Name	cathepsin E isoform a preproprotein
NCBI Official Synonym Full Names	cathepsin E
NCBI Official Symbol	CTSE
NCBI Official Synonym Symbols	CATE
UniProt Protein Name	Cathepsin E
Protein Family	Cathepsin
UniProt Gene Name	CTSE
UniProt Entry Name	CATE_HUMAN
NCBI Protein Information	cathepsin E
NCBI Summary for CTSE	The protein encoded by this gene is a gastric aspartyl protease that functions as a disulfide-linked homodimer. This protease, which is a member of the peptidase A1 family, has a specificity similar to that of pepsin A and cathepsin D. It is an intracellular proteinase that does not appear to be involved in the digestion of dietary protein and is found in highest concentration in the surface of epithelial mucus-producing cells of the stomach. It is the first aspartic proteinase expressed in the fetal stomach and is found in more than half of gastric cancers. It appears, therefore, to be an oncofetal antigen. Transcript variants utilizing alternative polyadenylation signals and two transcript variants encoding different isoforms exist for this gene. [provided by RefSeq, Aug 2015]
UniProt Comments for CTSE	CTSE: May have a role in immune function. Probably involved in the processing of antigenic peptides during MHC class II-mediated antigen presentation. May play a role in activation-induced lymphocyte depletion in the thymus, and in neuronal degeneration and glial cell activation in the brain. Belongs to the peptidase A1 family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Protease; EC 3.4.23.34 Chromosomal Location of Human Ortholog: 1q31 Cellular Component: endosome Molecular Function: protein homodimerization activity; aspartic-type endopeptidase activity Biological Process: protein autoprocessing; digestion; antigen processing and presentation of exogenous peptide antigen via MHC class II; proteolysis
Research Articles on CTSE	**1.** Decreased activity of cathepsin E produced by decidual macrophages might be responsible for the induction of miscarriages in some recurrent miscarriage patients.
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