FAT1 siRNA – Protocadherin Fat 1 (Human)

PRODUCT OVERVIEW

Product Name	FAT1, siRNA
Full Product Name	FAT1 siRNA (Human)
Product Gene Name	FAT1 sirna
Product Synonym Names	CDHF7; FAT; Protocadherin Fat 1; Cadherin family member 7; Cadherin-related tumor suppressor homolog; Protein fat homolog
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	FAT1 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	506,273 Da
OMIM	600976
3D Structure	ModBase 3D Structure for Q14517
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 FAT1 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 FAT1 sirna	RNA Interference (RNAi)
Related Product Information for FAT1 sirna	MBS8224469 is an siRNA targeting FAT1. Also known as FAT1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit FAT1 expression using RNA interference
Other Notes	Small volumes of FAT1 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 FAT1. It may not necessarily be applicable to this product.

NCBI GI #	66346693
NCBI GeneID	2195
NCBI Accession #	NP_005236.2
UniProt Primary Accession #	Q14517
UniProt Related Accession #	Q14517
GenBank Nucleotide #	NM_005245.3
NCBI Official Full Name	protocadherin Fat 1
NCBI Official Synonym Full Names	FAT atypical cadherin 1
NCBI Official Symbol	FAT1
NCBI Official Synonym Symbols	FAT; ME5; CDHF7; CDHR8; hFat1
UniProt Protein Name	Protocadherin Fat 1
UniProt Synonym Protein Names	Cadherin family member 7; Cadherin-related tumor suppressor homolog; Protein fat homolog
Protein Family	Actin-interacting protein
UniProt Gene Name	FAT1
UniProt Synonym Gene Names	CDHF7; FAT
UniProt Entry Name	FAT1_HUMAN
NCBI Protein Information	protocadherin Fat 1
NCBI Summary for FAT1	This gene is an ortholog of the Drosophila fat gene, which encodes a tumor suppressor essential for controlling cell proliferation during Drosophila development. The gene product is a member of the cadherin superfamily, a group of integral membrane proteins characterized by the presence of cadherin-type repeats. In addition to containing 34 tandem cadherin-type repeats, the gene product has five epidermal growth factor (EGF)-like repeats and one laminin A-G domain. This gene is expressed at high levels in a number of fetal epithelia. Its product probably functions as an adhesion molecule and/or signaling receptor, and is likely to be important in developmental processes and cell communication. Transcript variants derived from alternative splicing and/or alternative promoter usage exist, but they have not been fully described. [provided by RefSeq, Jul 2008]
UniProt Comments for FAT1	FAT: Plays an essential role for cellular polarization, directed cell migration and modulating cell-cell contact. Protein type: Motility/polarity/chemotaxis; Membrane protein, integral Chromosomal Location of Human Ortholog: 4q35 Cellular Component: focal adhesion; integral to plasma membrane; perinuclear region of cytoplasm; lamellipodium; plasma membrane; intercellular junction; nucleus; filopodium Molecular Function: protein binding; calcium ion binding Biological Process: cell migration; anatomical structure morphogenesis; cell-cell adhesion; cell-cell signaling; establishment and/or maintenance of cell polarity; actin filament organization; cell adhesion; homophilic cell adhesion
Research Articles on FAT1	**1.** Analysis revealed an aberrant expression of FAT1 predominantly in mature BCP-ALL and thymic T-ALL and a high rate of FAT1 mutations.
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