OCLN siRNA – Occludin Isoform a (Human)

PRODUCT OVERVIEW

Product Name	OCLN, siRNA
Full Product Name	OCLN siRNA (Human)
Product Gene Name	OCLN sirna
Product Synonym Names	Occludin
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	OCLN 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	8,175 Da
OMIM	251290
3D Structure	ModBase 3D Structure for Q16625
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 OCLN 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 OCLN sirna	RNA Interference (RNAi)
Related Product Information for OCLN sirna	MBS8200468 is an siRNA targeting OCLN. Also known as OCLN siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit OCLN expression using RNA interference
Other Notes	Small volumes of OCLN 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 OCLN. It may not necessarily be applicable to this product.

NCBI GI #	327478414
NCBI GeneID	100506658
NCBI Accession #	NP_001192183.1
UniProt Primary Accession #	Q16625
UniProt Secondary Accession #	Q5U1V4; Q8N6K1; B5BU70; D2DU64; D2DU65; D2IGC0; D2IGC1; E2CYV9
UniProt Related Accession #	Q16625
GenBank Nucleotide #	NM_001205254.1
NCBI Official Full Name	occludin isoform a
NCBI Official Synonym Full Names	occludin
NCBI Official Symbol	OCLN
NCBI Official Synonym Symbols	BLCPMG; PPP1R115
UniProt Protein Name	Occludin
Protein Family	Occludin
UniProt Gene Name	OCLN
UniProt Entry Name	OCLN_HUMAN
NCBI Protein Information	occludin
NCBI Summary for OCLN	This gene encodes an integral membrane protein that is required for cytokine-induced regulation of the tight junction paracellular permeability barrier. Mutations in this gene are thought to be a cause of band-like calcification with simplified gyration and polymicrogyria (BLC-PMG), an autosomal recessive neurologic disorder that is also known as pseudo-TORCH syndrome. Alternative splicing results in multiple transcript variants. A related pseudogene is present 1.5 Mb downstream on the q arm of chromosome 5. [provided by RefSeq, Apr 2011]
UniProt Comments for OCLN	occludin: May play a role in the formation and regulation of the tight junction (TJ) paracellular permeability barrier. It is able to induce adhesion when expressed in cells lacking tight junctions. Interacts with TJP1/ZO1 and with VAPA. Localized at tight junctions of both epithelial and endothelial cells. Highly expressed in kidney. Not detected in testis. Belongs to the ELL/occludin family. 7 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral; Motility/polarity/chemotaxis; Membrane protein, multi-pass; Cell adhesion Chromosomal Location of Human Ortholog: 5q13.1 Cellular Component: tight junction; apicolateral plasma membrane; endocytic vesicle; apical plasma membrane; integral to membrane; plasma membrane; intercellular junction; cytoplasmic vesicle; cell junction; cytosol Molecular Function: thiopurine S-methyltransferase activity; protein domain specific binding; protein binding; structural molecule activity Biological Process: methylation; intercellular junction assembly and maintenance; apoptosis; S-adenosylmethionine metabolic process; protein complex assembly; S-adenosylhomocysteine metabolic process; cell structure disassembly during apoptosis Disease: Band-like Calcification With Simplified Gyration And Polymicrogyria
Research Articles on OCLN	**1.** miR-18a and RUNX1 could reversely regulate the permeability of blood-tumor barrier as well as the expressions and distributions of ZO-1, occludin and claudin-5.
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