SLC15A1 siRNA – Solute Carrier Family 15 Member 1 (Human)

PRODUCT OVERVIEW

Product Name	SLC15A1, siRNA
Full Product Name	SLC15A1 siRNA (Human)
Product Gene Name	SLC15A1 sirna
Product Synonym Names	PEPT1; Solute carrier family 15 member 1; Intestinal H(+)/peptide cotransporter; Oligopeptide transporter. small intestine isoform; Peptide transporter 1
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	SLC15A1 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	78,806 Da
OMIM	600544
3D Structure	ModBase 3D Structure for P46059
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 SLC15A1 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 SLC15A1 sirna	RNA Interference (RNAi)
Related Product Information for SLC15A1 sirna	MBS8222306 is an siRNA targeting SLC15A1. Also known as SLC15A1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit SLC15A1 expression using RNA interference
Other Notes	Small volumes of SLC15A1 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 SLC15A1. It may not necessarily be applicable to this product.

NCBI GI #	4827008
NCBI GeneID	6564
NCBI Accession #	NP_005064.1
UniProt Primary Accession #	P46059
UniProt Secondary Accession #	Q5VW82
UniProt Related Accession #	P46059
GenBank Nucleotide #	NM_005073.3
NCBI Official Full Name	solute carrier family 15 member 1
NCBI Official Synonym Full Names	solute carrier family 15 (oligopeptide transporter), member 1
NCBI Official Symbol	SLC15A1
NCBI Official Synonym Symbols	PEPT1; HPECT1; HPEPT1
UniProt Protein Name	Solute carrier family 15 member 1
UniProt Synonym Protein Names	Intestinal H(+)/peptide cotransporter; Oligopeptide transporter, small intestine isoform; Peptide transporter 1
Protein Family	Solute carrier family
UniProt Gene Name	SLC15A1
UniProt Synonym Gene Names	PEPT1
UniProt Entry Name	S15A1_HUMAN
NCBI Protein Information	solute carrier family 15 member 1
NCBI Summary for SLC15A1	This gene encodes an intestinal hydrogen peptide cotransporter that is a member of the solute carrier family 15. The encoded protein is localized to the brush border membrane of the intestinal epithelium and mediates the uptake of di- and tripeptides from the lumen into the enterocytes. This protein plays an important role in the uptake and digestion of dietary proteins. This protein also facilitates the absorption of numerous peptidomimetic drugs. [provided by RefSeq, Apr 2010]
UniProt Comments for SLC15A1	SLC15A1: Proton-coupled intake of oligopeptides of 2 to 4 amino acids with a preference for dipeptides. May constitute a major route for the absorption of protein digestion end-products. Belongs to the PTR2/POT transporter (TC 2.A.17) family. Protein type: Transporter; Membrane protein, integral; Transporter, SLC family; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 13q32.3 Cellular Component: membrane; integral to plasma membrane; plasma membrane Molecular Function: proton-dependent oligopeptide secondary active transmembrane transporter activity; peptide:hydrogen symporter activity Biological Process: protein transport; proton transport; transport; digestion; ion transport; transmembrane transport
Research Articles on SLC15A1	**1.** The PEPT1 rs2297322 single-nucleotide polymorphism was not associated with inflammatory bowel disease susceptibility in our German cohort.
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