SLC38A4 siRNA – Sodium-Coupled Neutral Amino Acid Transporter 4 (Mouse)

PRODUCT OVERVIEW

Product Name	SLC38A4, siRNA
Full Product Name	SLC38A4 siRNA (Mouse)
Product Gene Name	SLC38A4 sirna
Product Synonym Names	ATA3; NAT3; SNAT4; Sodium-coupled neutral amino acid transporter 4; Amino acid transporter A3; Na(+)-coupled neutral amino acid transporter 4; Solute carrier family 38 member 4; System A amino acid transporter 3
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	SLC38A4 siRNA (Mouse) 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	60,464 Da
3D Structure	ModBase 3D Structure for Q8R1S9
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 mouse SLC38A4 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 SLC38A4 sirna	RNA Interference (RNAi)
Related Product Information for SLC38A4 sirna	MBS8236118 is an siRNA targeting SLC38A4. Also known as SLC38A4 siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit SLC38A4 expression using RNA interference
Other Notes	Small volumes of SLC38A4 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 SLC38A4. It may not necessarily be applicable to this product.

NCBI GI #	31543737
NCBI GeneID	69354
NCBI Accession #	NP_081328.2
UniProt Primary Accession #	Q8R1S9
UniProt Secondary Accession #	Q3TEZ9; Q3TJ89; Q3TPL5; Q8VIE7
UniProt Related Accession #	Q8R1S9
GenBank Nucleotide #	NM_027052.3
NCBI Official Full Name	sodium-coupled neutral amino acid transporter 4
NCBI Official Synonym Full Names	solute carrier family 38, member 4
NCBI Official Symbol	Slc38a4
NCBI Official Synonym Symbols	Ata3; mATA3; mNAT3; 1110012E16Rik; 1700012A18Rik
UniProt Protein Name	Sodium-coupled neutral amino acid transporter 4
UniProt Synonym Protein Names	Amino acid transporter A3; Na(+)-coupled neutral amino acid transporter 4; Solute carrier family 38 member 4; System A amino acid transporter 3
Protein Family	Sodium-coupled neutral amino acid transporter
UniProt Gene Name	Slc38a4
UniProt Synonym Gene Names	Ata3; Nat3; Snat4
UniProt Entry Name	S38A4_MOUSE
NCBI Protein Information	sodium-coupled neutral amino acid transporter 4
UniProt Comments for SLC38A4	SLC38A4: Sodium-dependent amino acid transporter. Mediates electrogenic symport of neutral amino acids and sodium ions. Has a broad specificity, with a preference for Ala, followed by His, Cys, Asn, Ser, Gly, Val, Thr, Gln and Met. May mediate sodium- independent transport of cationic amino acids, such as Arg and Lys. Amino acid uptake is pH-dependent, with low transport activities at pH 6.5, intermediate at pH 7.0 and highest between pH 7.5 and 8.5. Belongs to the amino acid/polyamine transporter 2 family. Protein type: Membrane protein, integral; Membrane protein, multi-pass; Transporter, SLC family; Transporter Cellular Component: membrane; integral to plasma membrane; plasma membrane; integral to membrane Molecular Function: symporter activity; amino acid transmembrane transporter activity Biological Process: amino acid transport; transport; sodium ion transport; ion transport
Research Articles on SLC38A4	**1.** results suggest that cysteine residues 249 and 321 form a disulfide bridge, which plays an important role in substrate transport but has no effect on trafficking of SNAT4 to the cell surface.
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