ABCC2 siRNA – Canalicular Multispecific Organic Anion Transporter 1 (Rat)

PRODUCT OVERVIEW

Product Name	ABCC2, siRNA
Full Product Name	ABCC2 siRNA (Rat)
Product Gene Name	ABCC2 sirna
Product Synonym Names	CMOAT; CMRP; MRP2; Canalicular multispecific organic anion transporter 1; ATP-binding cassette sub-family C member 2; Canalicular multidrug resistance protein; Multidrug resistance-associated protein 2
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	ABCC2 siRNA (Rat) 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	173,384 Da
3D Structure	ModBase 3D Structure for Q63120
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 rat ABCC2 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 ABCC2 sirna	RNA Interference (RNAi)
Related Product Information for ABCC2 sirna	MBS8223977 is an siRNA targeting ABCC2. Also known as ABCC2 siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit ABCC2 expression using RNA interference
Other Notes	Small volumes of ABCC2 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 ABCC2. It may not necessarily be applicable to this product.

NCBI GI #	6978669

NCBI GeneID	25303
NCBI Accession #	NP_036965.1
UniProt Primary Accession #	Q63120
UniProt Secondary Accession #	Q63145
UniProt Related Accession #	Q63120
GenBank Nucleotide #	NM_012833.2
NCBI Official Full Name	canalicular multispecific organic anion transporter 1
NCBI Official Synonym Full Names	ATP-binding cassette, subfamily C (CFTR/MRP), member 2
NCBI Official Symbol	Abcc2
NCBI Official Synonym Symbols	Mrp2; cMRP; Cmoat
UniProt Protein Name	Canalicular multispecific organic anion transporter 1
UniProt Synonym Protein Names	ATP-binding cassette sub-family C member 2; Canalicular multidrug resistance protein; Multidrug resistance-associated protein 2
Protein Family	ABC transporter C family
UniProt Gene Name	Abcc2
UniProt Synonym Gene Names	Cmoat; Cmrp; Mrp2
UniProt Entry Name	MRP2_RAT
NCBI Protein Information	canalicular multispecific organic anion transporter 1
NCBI Summary for ABCC2	multispecific organic anion transporter; mutation may be responsible for conjugated hyperbilirubinemia in the TR- rat, which is a model for human Dubin-Johnson syndrome [RGD, Feb 2006]
UniProt Comments for ABCC2	ABCC2: Mediates hepatobiliary excretion of numerous organic anions. May function as a cellular cisplatin transporter. Found on the apical membrane of polarized cells in liver, kidney and intestine. The highest expression is found in liver. Belongs to the ABC transporter superfamily. ABCC family. Conjugate transporter (TC 3.A.1.208) subfamily. Protein type: Membrane protein, integral; Transporter; Membrane protein, multi-pass; Transporter, ABC family Cellular Component: intercellular canaliculus; cell surface; membrane; integral to plasma membrane; apical plasma membrane Molecular Function: protein domain specific binding; protein binding; ATPase activity, coupled to transmembrane movement of substances; organic anion transmembrane transporter activity; ATP binding Biological Process: response to drug; prostaglandin transport; response to estrogen stimulus; response to heat; metabolic process; response to steroid hormone stimulus; response to arsenic; multidrug transport; response to methotrexate; response to oxidative stress; cellular chloride ion homeostasis; organic anion transport
Research Articles on ABCC2	**1.** hyperammonemia increases the function and expression of P-glycoprotein and multidrug resistance-associated protein 2 at the blood-brain barrier via activating NF-kappaB pathway
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.

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