

Product datasheet for **MR208553**

Mfsd2a (NM_029662) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mfsd2a (NM_029662) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mfsd2a
Synonyms:	1700018O18Rik; Mfsd2; NLS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR208553 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCAAAGGAGAAGGCGCCGAGAGCGGTTCCGCGGCGGGCTGCTCCCACCAGCATCTCCAAGCCA
 GTGAACGCGCCGGTCCAGGTGAAGAAGGAACCAAAAAGAAGCAGCAACTGTCCATTTGCAACAAGCTTTG
 CTATGCAGTTGGAGGGGCCCGTACCAGTTGACCGGCTGCGCACTGGGATTCTTCTGCATATCTACCTA
 TTGGATGTGGCTAAGGTGGAACCACTTCTGCTTCCATTATCCTTTTTGTGGCCGAGCCTGGGATGCCT
 TCACTGACCCCTGGTGGGCTTTCGATTAGCAAGTCTCTGGACCCGCTGGGCCGCTCATGCCCTG
 GATCATCTTCCACTCCCCTGGCCATCATTGCTTACTTCTCATCTGGTTTGTGCCTGACTTCCCATCA
 GGGACGGAAAGTTCACACGGCTTCTTTGGTACCTGCTTTTCTATTGCCTCTTTGAGACTGGTACGT
 GCTTTTCATGTTCCCTACTCAGCGCTCACCATGTTTCATCAGCACGGAGCAGAGTGAGCGTGACTCAGCCAC
 GGCATACAGAATGACTGTGGAGTGCTGGGCACAGTGATAGGCACAGCGATTCAAGGACAAATTGTGGGC
 CAAGCCAAGGCACCTTGCTCCAGGACCAGAATGGCTCTGTGGTGGTCTCAGAAGTTGCCAATCGCACCC
 AGAGTACTGCCTCCCTCAAGACACGCAAAATGCTTACCTGCTGGCAGCAGGGATCATCGCTCCATCTA
 CGTCTCTGTGCCTTCTTCTGATCCTAGGCGTGCAGGAGCAGAGAGAACTCTACGAGTCCCAGCAGGCT
 GAGTCAATGCCCTTCTTTCAGGGCTCCGGCTGGTCATGGGTCATGGCCCTATGTCAAGCTCATTGCCG
 GCTTCTTTTTACCTCCCTGGCTTTCATGCTGGTGGAGGGTAACCTTGCCTTGTCTGCACCTATACCTT
 GGACTTCCGAAATGAGTTCAGAACCTCCTCTGGCCATCATGCTCTCGGCCACATTACCATCCCTATC
 TGGCAGTGGTTCCTAACCCGGTTTGGCAAGAAGACAGCTGTATACATCGGATCTCTTCTGCAGTTCCTT
 TTCTCATCTTGGTGGCCCTCATGGAGCGTAATCTAATCGTCACTTACGTGGTGGCCGATGACGCTGGCCT
 CAGTGTAGCAGCTGCCTTCTACTACCATGGTCCATGCTGCCTGACGTTATCGATGACTTCCACGTGAAA
 CACCCTACTCCCTGGCACCGAGCCCATATTCTTCTCTTCTATGTCTTCTCACCAAGTTTGCCTCTG
 GAGTCTCACTGGGTGCTCTACCCTCAGTCTCGACTTTGCCAACTACCAGAGGCAGGGATGCTCCCAGCC
 AGAACAGGTCAAGTTTACACTGAAGATGCTGGTACCATGGCTCCTATCATCCTCATCTTCTGGCCCTG
 CTGCTCTCAAGCTTACCCATTGATGAGGAGAAGCGGCGACAGAAATAAGAAAGCTCTGCAGGCTCTAC
 GAGAAGAAGCCAGCAGCTCAGGTGCTCGGATACAGACTCCACAGAGCTGGCCAGTATTCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208553 protein sequence
 Red=Cloning site Green=Tags(s)

MAKGEGAESGSAAGLLPTSILQASERPQVKKEPKKKQQLSICNKL CYAVGGAPYQLTGCALGFFLHIYL
 LDVAKVEPLPASIIILFVGRAWDAFTDPLVGFCSKSSWTRLGRLMPWIIIFSTPLAIIAYFLIWFVPDFPS
 GTESSHGFLWYLLFYCLFETLVTCFHVYPYSALTMFISTEQSERDSATAYRMTVEVLGTVIGTAIQGQIVG
 QAKAPCLQDQNGSVVVSEVANRTQSTASLKDTQNA YLLAAGIIASIVLCAFILILGVREQRELYESQQA
 ESMPFFQGLRLVMGHGPYVKLIAGFLFTSLAFMLVEGNFALFCTYTLDFRNEFNLLLAIMLSATFTIPI
 WQWFLTRFGKKTAVYIGISSAVPFLILVALMERNLIVTYVVAAGVSVAAAFLLPWSMLPDVIDDFHLK
 HPHSPGTEPIFFSFYVFFTKFASGVSLGVSTLSLDFANYQRQGSQPEQVKFTLKMVLTMAPIILILLGL
 LLFKLYPIDEEKRRQNKALQALREEASSSGCSDDTSTELASIL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

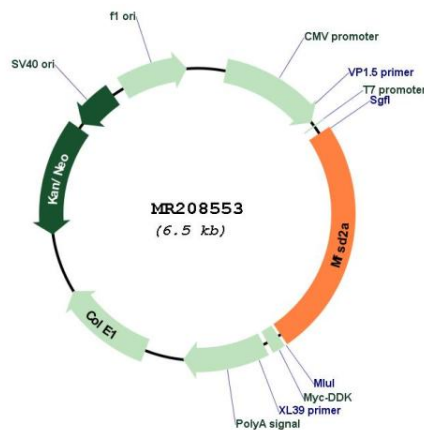
Restriction Sites:

Sgfl-Mlul

RefSeq: [NM_029662.1, NP_083938.1](#)
RefSeq Size: 2166 bp
RefSeq ORF: 1605 bp
Locus ID: 76574
UniProt ID: [Q9DA75](#)
Cytogenetics: 4 D2.2
MW: 59 kDa

Gene Summary: Sodium-dependent lysophosphatidylcholine (LPC) symporter, which plays an essential role for blood-brain barrier formation and function (PubMed:24828044, PubMed:24828040). Specifically expressed in endothelium of the blood-brain barrier of micro-vessels and transports LPC into the brain. Transport of LPC is essential because it constitutes the major mechanism by which docosahexaenoic acid (DHA), an omega-3 fatty acid that is essential for normal brain growth and cognitive function, enters the brain. Transports LPC carrying long-chain fatty acids such LPC oleate and LPC palmitate with a minimum acyl chain length of 14 carbons. Does not transport docosahexaenoic acid in unesterified fatty acid (PubMed:24828044). Specifically required for blood-brain barrier formation and function, probably by mediating lipid transport. Not required for central nervous system vascular morphogenesis (PubMed:24828040). Acts as a transporter for tunicamycin, an inhibitor of asparagine-linked glycosylation.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR208553