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Product datasheet for MR208809

Slc22a1 (NM_009202) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc22a1 (NM_009202) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Slc22a1
Synonyms:	Lx1; Oct1; Orct; Orct1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>MR208809 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCACCGTGGACGATGTCCTGGAGCACGTTGGAGAGTTTGGCTGGTTCCAGAAGCAAGCCTTCCTGT
TGCTATGCCTGATCTCAGCTTCTTTAGCTCCCATCTACGTGGGCATCGTTTTCCTGGGCTTCACCCCCGA
CCACCACTGCCGGAGTCCTGGAGTGGCCGAGCTGAGCCAGCGGTGTGGCTGGAGCCCGGCAGAGGAGCTG
AACTACACCGTGCCGGGCCTGGGGTCTGCGGGTGAGGCCTCCTTCCTCAGCCAATGCATGAAGTATGAGG
TGGACTGGAACCAGAGCACCCTTGACTGTGTGGACCCACTGTCCAGCCTGGCTGCCAACAGGAGCCACTT
GCCACTGAGCCCCTGCGAGCATGGCTGGGTGTACGACACTCCCGGCTCCTCCATCGTCACTGAGTTTAAC
CTGGTGTGTGGAGACGCCTGGAAAGTGGACCTTTTTCAGTCCTGTGTGAACTTGGGCTTCTTCCTGGGCT
CCCTGGTTGTGGGTTACATTGCAGACAGGTTTGGCCGTAAGCTCTGCCTCCTGGTGACCACTCTGGTCAC
CTCCCTGTCTGGCGTGTTAACAGCGGTGGCCCCAGACTATACATCCATGTTGCTCTTTCGCCTTCTGCAA
GGCATGGTCAGCAAAGGCAGCTGGGTGTCTGGCTACACCTTGATCACAGAGTTTGTCGGCTCTGGCTACA
GGAGAACGACAGCCATCTTGTACCAGGTGGCCTTCACAGTGGGGCTAGTGGGGCTTGCTGGGGTGGCCTA
TGCCATTCCAGACTGGCGCTGGCTCCAGCTGGCGGTGTCCCTGCCCACCTTCCTCTTCCTGCTGTATTAC
TGGTTTGTCCCAGAATCCCCCCGGTGGCTGTTGTCTCAGAAGAGAACCACTCAAGCGGTAAGGATAATGG
AGCAAATTGCACAGAAGAACAGGAAGGTGCCCCCTGCTGACCTGAAGATGATGTGCCTTGAGGAAGATGC
CTCAGAGAGGCGGAGTCCTTCGTTTGCAGACCTGTTCCGCACCCCCAGCCTGAGGAAGCACACCCTCATC
CTGATGTATCTATGGTTCTCTTGTGCTGTGCTGTACCAGGGCCTCATCATGCATGTGGGAGCCACAGGGG
CCAACCTCTACCTGGACTTCTTTTATTCTTCTCTAGTGGAATTCCCTGCGGCCTTTATCATCCTTGTCAC
CATTGACCGCATTGGCCGCATCTACCCAATAGCGGCATCAAATCTGGTGGCGGGGGCAGCCTGCCTCCTC
ATGATCTTTATCCCACATGAGCTGCATTGGTTGAATGTGACCCTCGCTTGTCTTGGCCGTATGGGAGCCA
CCATTGTGTTGCAGATGGTCTGCCTAGTGAACGCTGAGCTGTACCCTACATTCATCAGGAATCTCGGGAT
GATGGTGTGCTCTGCCCTGTGTGACCTAGGTGGGATCTTCACCCCCTTCATGGTGTTCAGGCTGATGGAA
GTTTGGCAAGCCCTGCCCCTCATTTTGTTTGGGGTTTTGGGCCTGAGTGCTGGGGCTGTGACCCTTCTAC
TTCCGGAGACCAAGGGCGTGGCTCTGCCTGAGACTATTGAAGAAGCGGAGAACCTGGGAAGGAGGAAATC
AAAGGCCAAAGAAAACACGATTTACCTTCAGGTCCAAACAGGCAAATCCCCACATACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

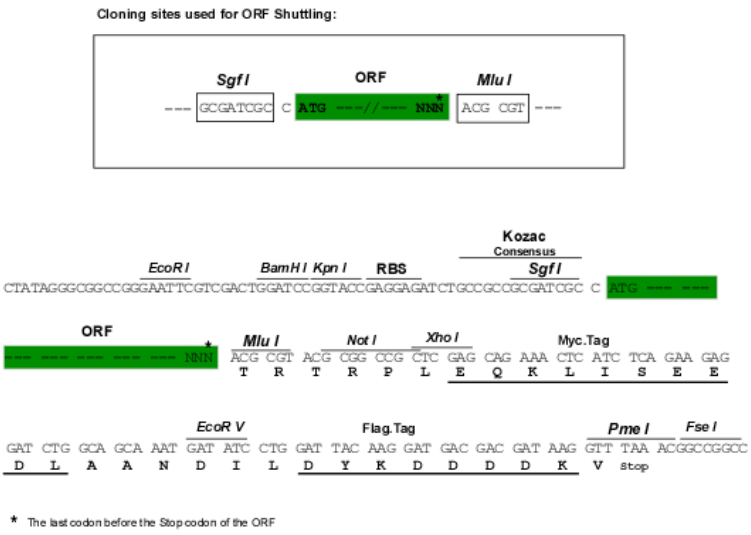
>MR208809 protein sequence
Red=Cloning site Green=Tags(s)

MPTVDDVLEHVGEFGWFQKQAFLLLCLISASLAPIYVGIVFLGFTPDHHCRSPGVAELSQRCGWSPAEEL
NYTVPGLGSAGEASFLSQCMKYEVDWNQSTLDCVDPLSSLAANRSHLPLSPCEHGWVYDTPGSSIVTEFN
LVCGDAWKVDLFQSCVNLGFFLGSLVVGYIADRFGRKLCLLVTTLVTSLSGVLTAVAPDYTSMLLFRLLQ
GMVSKGSWVSGYTLITEFVGSGYRRTTAILYQVAFTVGLVGLAGVAYAIPDWRWLQLAVSLPTFLFLLYY
WFVPESPRWLLSQKRTTQAVRIMEQIAQKNRKVPPADLKMMCLEEDASERRSPSFADLFRTPSLRKHTLI
LMYLWFSCAVLYQGLIMHVGATGANLYLDFFYSSLVEFPAAFIILVTIDRIGRIYPIAASNLVAGAACLL
MIFIPHELHWLNVTLACLGRMGATIVLQMVCLVNAELYPTFIRNLGMMVCSALCDLGGIFTPFMVFRLME
VWQALPLILFGVLGLSAGAVTLLLPETKGVALPETIEEAENLGRRKSKAKENTIYLQVQTGKSPHT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_009202

ORF Size: 1671 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: NM_009202.5

RefSeq Size: 1994 bp

RefSeq ORF: 1671 bp

Locus ID: 20517

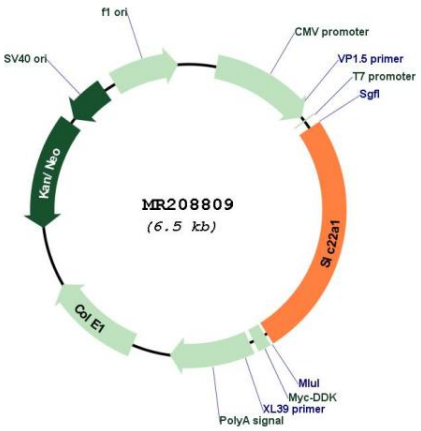
UniProt ID: O08966

Cytogenetics: 17 8.63 cM

MW: 61.5 kDa

Gene Summary: Translocates a broad array of organic cations with various structures and molecular weights including the model compounds 1-methyl-4-phenylpyridinium (MPP), tetraethylammonium (TEA), N-1-methylnicotinamide (NMN), 4-(4-(dimethylamino)styryl)-N-methylpyridinium (ASP), the endogenous compounds choline, guanidine, histamine, epinephrine, adrenaline, noradrenaline and dopamine, and the drugs quinine, and metformin. The transport of organic cations is inhibited by a broad array of compounds like tetramethylammonium (TMA), cocaine, lidocaine, NMDA receptor antagonists, atropine, prazosin, cimetidine, TEA and NMN, guanidine, cimetidine, choline, procainamide, quinine, tetrabutylammonium, and tetrapentylammonium. Translocates organic cations in an electrogenic and pH-independent manner. Translocates organic cations across the plasma membrane in both directions. Transports the polyamines spermine and spermidine. Transports pramipexole across the basolateral membrane of the proximal tubular epithelial cells. The choline transport is activated by MMTS. Regulated by various intracellular signaling pathways including inhibition by protein kinase A activation, and endogenously activation by the calmodulin complex, the calmodulin-dependent kinase II and LCK tyrosine kinase.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR208809