

Product datasheet for **MG208471**

Slc29a4 (BC025599) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc29a4 (BC025599) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slc29a4
Synonyms:	ENT4, MGC38048
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208471 representing BC025599
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGCTCTATCGGAAGCCAGCGCCTCAAGGAGCCTGCGTGGCAGCCACATCTGACCAGAGTGTGGTGA
 CAAGCTTTAGCTTTGACAACTTCCAGCTGGAGACGACAGCAGAGGGGGCTCAGGATCCAGGCATCAGAGT
 CAGGGGTGTCCTCACTTTACAGACTCTGCGGTAGAGGAGCCTGTGCCAGATGACCGCTACCATGCCATC
 TACTTTGCCATGCTGCTGGCTGGCGTGGCTTCTACTGCCATACAACAGCTTTATCACCAGTGTGACT
 ATCTTCACCACAAGTACCCAGGGACCTCCATCGTATTTGACATGAGCCTCACCTATATCCTGGTGGCATT
 GGCGGCTGTGCTCCTAAACAACGTTGTGGTGGAGAGGTTGAACCTGCACACCAGGATCACCACAGGCTAC
 CTCCTCGCCTGGGTCCCTTGTCTTTATCAGCATATGCGATGTGTGGCTGCAGCTTCTCTCACGACC
 AGGCTTACGCCATCAACCTGGCCCGGTGGGCACTGTGGCCTTTGGTTGCACAGTGCAGCAATCTAGCTT
 CTATGGCTACACGGGATTACTGCCCAAGAGGTACACGCAGGTTGATGACTGGAGAGACCGGCAGGG
 GTGATGATCTCTCTGAGTGAATCCTACTAAGCTGCTGCTCCCGACGACGGGCCAGCACCATCATCT
 TCTTCTGGTGTCTGCCGGCTTGAGACTCCTGTGCTTCTGCTGCATCTGCTGGTGGCGCCAGCCGTTT
 TGTGCTCTACTATAACACTCGGCCCGTGACAGCCGCCCGTCCAGGCAGGCTACCGAGTGCACCACGAT
 GTCGCATCCGGAGACATCCACTTTGAGCACAACTCCAGCCCTATCCAGCAGCAGGTCCCCGAAGGAGA
 GCCCGGCCATGAGGTGACGCACAGCAACAGTGGGGTCTACATGCGTTTTGATGTCCCCGGCCACGAGT
 CAAACGAAGCTGGCCACCTTACAGCCCTGCTGTTGCACCGATACGTCGTCGGCGGGTTCATCTGGCC
 GACATGCTGTCCATTGCGGTAACCTACTTACCTACTGTGCTGTTCCGGGCCCTGGAGTCCGAGATCC
 GCCACTGCGTGTGGGGAGTGGCTGCCATCCTGGTGTGGCCGTGTTCAACCTGTGAGCTTTGTGGG
 CAAGATCCTGGCAGCCCTGCCCGTGGAGTGGCGGGCACTCACCTGCTCGCCTGCTCTTGCTGCTGTG
 GTCTTATCCCCCTTTCATCCTGTGTGTGTACCCAGTGGCATGCCTGCCCTCCGCCACCTGCCTGGC
 CCTGTGCTTCTCGCTGCTAATGGGCATCAGCAATGGCTACTTTGGCAGTGTGCCATGATCCTGGCAGC
 TGGAAAAGTGAAGCCCAAGCAGCGGGAAGTGGCAGGAAACACCATGACTGTGCTTACATGTGGGGCTG
 ACCCTGGGCTCTGCTGTGGCCTACTGCACCTACAGCCTCACCCGAGATGCCACGGCAGCTGCTTCAA
 CAGCCACCGCCCGCCGCCAACGACTCCATCCCTGTCGGTCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG208471 representing BC025599
 Red=Cloning site Green=Tags(s)

MGSIGSQRLKEPCVAATSQDSVTSFSFDNFQLETTAEGAQDPGIRVRGVPTFTDSAVEEPPDDRYHAI
 YFAMLLAGVGFLLPYNSFITDVDYLHKKYPGTSIVFDMSLTYILVALAAVLLNNVVVERLNLHTRITTY
 LLALGPLLFIISICDVWLQLFSDHQAYAINLAAGTVAFGCTVQSSFYGYTGLLPKRYTQGVMTGESTAG
 VMISLSRILTKLLLPDERASTIIFFLVSAGLELLCFLLHLLVRRSRFVLYTTRPRDSRPVQAGYRVHHD
 VASGDIHFEHQTPALSSSRSPKESPAHEVTHSNSGVYMRFDVPRPRVKRSWPTFRALLLHRYVVARVIWA
 DMLSIAYTYFITLCLFPGLESEIRHCVLGEWLPILVMAVFNLSDFVGKILAALPVEWRGTHLLACSLRV
 VFIPLFILCVYPSGMPALRHPAWPCVFSLLMGISNGYFGSVPMILAAGKVSPKQRELAGNTMTVSYMSGL
 TLGSAVAYCTYSLTRDAHGSCFQTATAAAANDSIPVGP

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: BC025599

ORF Size: 1584 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [BC025599](#), [AAH25599](#)

RefSeq Size: 2886 bp

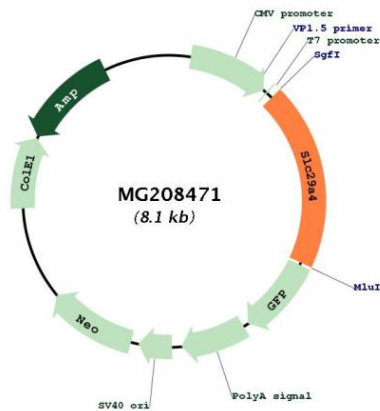
RefSeq ORF: 1586 bp

Locus ID: 243328

Cytogenetics: 5 G2

Gene Summary: Functions as a polyspecific organic cation transporter, efficiently transporting many organic cations such as monoamine neurotransmitters 1-methyl-4-phenylpyridinium and biogenic amines including serotonin, dopamine, norepinephrine and epinephrine. May play a role in regulating central nervous system homeostasis of monoamine neurotransmitters. May be involved in luminal transport of organic cations in the kidney and seems to use luminal proton gradient to drive organic cation reabsorption. Does not seem to transport nucleoside and nucleoside analogs such as uridine, cytidine, thymidine, adenosine, inosine, guanosine, and azidothymidine. In (PubMed:16873718) adenosine is efficiently transported but in a fashion highly sensitive to extracellular pH, with maximal activity in the pH range 5.5 to 6.5. Glu-206 is essential for the cation selectivity and may function as the charge sensor for cationic substrates. Transport is chloride and sodium-independent but appears to be sensitive to changes in membrane potential. Weakly inhibited by the classical inhibitors of equilibrative nucleoside transport, dipyridamole, dilazep, and nitrobenzylthioinosine. May play a role in the regulation of extracellular adenosine concentrations in cardiac tissues, in particular during ischemia (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG208471