

Product datasheet for **MG208933**

Slc5a8 (BC017691) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc5a8 (BC017691) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slc5a8
Synonyms:	MGC19357, Ait
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208933 representing BC017691
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCGGTGCGAGTATGTCGCGGTGCCTGTGGCTCTGTCCCTACCGCCAGCTTCATGTCCGCTGTCA
 CTGTCTGGGCACTCCTGCCGAGGTCTACCGTTTTGGGGCGATATTCAGCATCTTTGTATCACCTACTT
 TTTTGTAGTGGTTATCAGCGCGGAGGTCTTCTTCCAGTGTTCTATAGGCTGGGGATCACCAGCACCTAC
 GAGTATTTGGAACCTTCGATTTAATCGATGCATTCGTCTCTGTGGCACAATCCTCTTCATCGTTCAAACAA
 TTCTGTACACTGGAATTGTGATTTATGCCCTGCTCTGGCTTTGAATCAAGTTACAGGATTTGATCTGTG
 GGGCGCAGTGGTGGCCACAGGGTGGTCTGCACATTCTACTGCACACTGGGCGGTCTTAAAGCAGTTGTC
 TGGACAGATGTTTTCAAGTTGGGATCATGGTGGCTGGATTTGCATCCGTAATTATACAGGCATCAATAA
 CTCAACATGGCATCAATAAGATTTTAAGTGATGCTTTTAAATGGTGAAGATTAACCTTCTGGAATTTTGA
 TCCTAACCTTTGCAAAGACACAGTCTTGGACAATTGTCATTGGAGGGACTTTTACCTGGACCACCATC
 TATGGTGTCAACAGTCCCAAGTGCAGAGATATATTTCCGTGTAAGAGCAGACTCCATGCAAAACTGTCCC
 TCTATGTCAACCTTGTGGGCTCTGGGTGATCCTCACCTGCTCCATATTCTGTGGCTTGCCTGTACTC
 CAGATACCGTGAATGTGATCCCTGGACATCTAAGAAAGTGTGAGCGATTGACCAGCTTATGCCTATTTG
 GTGTTGGACATTTGAAAAATTACCCTGGTGTTCGCGACTTTTTGTGGCTGCGCTTACAGTGGGACAT
 TAAGCACAGTGTCTCCAGTATCAATGCCTTGGCGGAGTCACCGTGAAGATCTCATCAAAACCCGCTT
 CAAGTCTCTCTCAGAGAAGTCTCTGTCTTGATTTCCCAAGGAATGAGTGTCTGTATGGAGCTCTGTGC
 ATTGGAATGGCTGCCCTGGCATCGCTGATGGGAGCCTTGTACAGGCAGCACTCAGCATATTCGGCATGG
 TTGGTGGACCACTTCTGGGCTTGTCTTTTGGGCATCTTGGTCCCCTTCGCCAACTCAATTGGAGCACT
 CACTGGTCTGTTGGCTGGATTTGCCATTTCCCTTATGGGTAGGAATTGGAGCCAGCTTTACCTCCGCTT
 CCTGAGAGAACCTTACCATTGCCCTTGAACCTATGGCTGTAAACATCACGCACAATGGGTGCGACTGGA
 TGTCAACCACAGAAATGCCATTTTCTACTAGCGCTTTTCAAATACATAATGCGGAAAGGACTCCACTGAT
 GGACAATTGGTATTCAATATCATATCTGTACTTCACTACTATTGGAACGCTGACAACACTGTTTGTGGGG
 ATACTTATCAGCTTATCAACAGGAGGAAGAAAACAGAAGTACACCCCGATTCTTACTAACCAACAGG
 ACTTTTTATCAATTTTGTGTTTTTAAGAAAAGGAATCATGTTTTAACTATAAATTGCATCCTGTGGA
 AGTTGGTGGAATGATAACCTGCCTTCAACCATGTTGAGCTGAACCTCACAGATCACAGTGGCAAGATC
 AATGGGACTCGCTTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG208933 representing BC017691
 Red=Cloning site Green=Tags(s)

MGGRMSAVPVSLTASFMSAVTVLGTPEVYRFGAIFSIIVITYFFVVVISAEVFLPVFYRLGITSTY
 EYLELRFNRCIRLCGTILFIVQITILYTGIVYIYAPALALNQVTGFDLWGAVVATGVVCTFYCTLGGLKAVV
 WTDVVFQVGIMVAGFASVVIQASITQHGINKILSDAFNGGRLNFWNFDPNPLQRHTFWTIVIGGFTWTTI
 YGVNQSQVQRYISCKSRLHAKLSLYVNLVGLWVILTCSIFCGLALYSRYRECDPWTSSKKVSAIDQLMPYL
 VLDILKNYPGVPGLFVACAYSGTLSTVSSSINALAAVTVEDLIKPRFKSLSEKLSWISQGMSVLYGALC
 IGMAALASLMGALLQAALSIFGMVGGPLLGLFSLGILVPFANSIGALTGLLAGFAISLWVGIGAQLYPL
 PERTLPLPLETYGCNITHNGSDWMSTTEMPFSTSAFQIHNAERTPLMDNWYLSLYFSTIGTLTTLFVG
 ILISLSTGGRKQNLDPFRLLTKQDFLSNFDVFKRNHVLNKLHPVEVGGNDNPAFNHVELNFTDHSCKI
 NGTRL

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

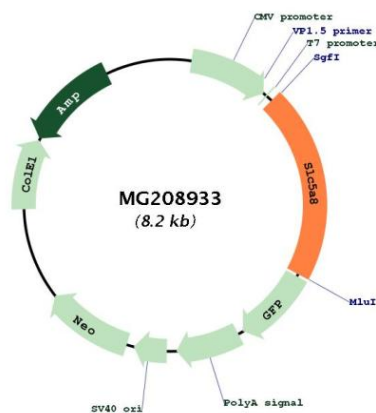


ACCN:	BC017691
ORF Size:	1695 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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:	BC017691.1
RefSeq Size:	5351 bp
RefSeq ORF:	1697 bp
Locus ID:	216225

Cytogenetics: 10 C1

Gene Summary: Acts as an electrogenic sodium (Na(+)) and chloride (Cl-)-dependent sodium-coupled solute transporter, including transport of monocarboxylates (short-chain fatty acids including L-lactate, D-lactate, pyruvate, acetate, propionate, valerate and butyrate), lactate, monocarboxylate drugs (nicotinate, benzoate, salicylate and 5-aminosalicylate) and ketone bodies (beta-D-hydroxybutyrate, acetoacetate and alpha-ketoisocaproate), with a Na(+):substrate stoichiometry of between 4:1 and 2:1. Catalyzes passive carrier mediated diffusion of iodide. Mediates iodide transport from the thyrocyte into the colloid lumen through the apical membrane. May be responsible for the absorption of D-lactate and monocarboxylate drugs from the intestinal tract. May play a critical role in the entry of L-lactate and ketone bodies into neurons by a process driven by an electrochemical Na(+) gradient and hence contribute to the maintenance of the energy status and function of neurons.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG208933