

## Product datasheet for **MG220834**

### Slc38a3 (NM\_023805) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Slc38a3 (NM_023805) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slc38a3
Synonyms:	0610012J02Rik; D9Ucla2; mNAT; Nat1; Slc38-3; Sn1; Snat3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG220834 representing NM\_023805  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGATACCCCGACAGACAGAGATGGTGGAGCTGGTGCCCAATGGCAAACACTTGGAGGGCTTCTAC  
 CAGTGGGCGTGCCCTACAACAGACACCCAGAGACTGAAGACACCCAACACTGTGGAGAGGGCAAGGGCTT  
 CCTTCAGAAGAGTCCCAGCAAGGAGCCACACTTACCGATTTTCGAGGGGAAGACATCATTTGGGATGTCA  
 GTGTTCAATCTCAGCAACGCCATCATGGGCAGTGGAAATTCGGGGCTCGCCTACGCCATGGCCAATACGG  
 GCATCATCCTTTTCTGTTCCTGTTACAGCGGTCGCCCTGTTGTCTAGCTATTCATCCACCTGCTCCT  
 CAAGTCTTCGGGGATTGTGGGCATCCGTGCCTACGAGCAGTTGGGCTACCGTGCCTTTGGGACCCCGGG  
 AAGCTGGCAGCAGCCCTGGCCATTACGCTTCAGAACATTGGAGCCATGTCCAGCTACCTATACATCATCA  
 AGTCTGAATTGCCTCTTGTACATACAGACCTTCTGAATCTGGAGAAGCCGGCCTCGGTGTGTACATGGA  
 TGGCAACTACCTTGTGATCCTGGTTTCTGTACCATCATTCTGCCCTAGCACTGATGCGACAGCTCGGC  
 TACCTGGGTTACTCCAGTGGCTTCTCTCAGCTGCATGGTGTCTTCTTATCGCAGTCACTATAAGA  
 AGTTCCAAGTTCCTTGCCATTGGCACACAACCTGGCCAATGCCACCGGCAACTTCAGCCACATGGTGGT  
 GGCAGAGGAGAAGGCACAGCTGCAGGGCGAGCCTGACACTGCTGCTGAGGCCCTTCTGTACCCCAAGCTAC  
 TTCACCTCAACTCACAGACAGCATACACCATCCCATCATGGCTTTCGCCTTCGTCTGCCACCTGAGG  
 TGCTGCCCATATATACAGAGCTCAAGGACCCCTCCAAGAGGAAGATGCAGCACATCTCCAACCTGTCCAT  
 TGCTGTATGTATGTACTTCTGGCCGCCCTCTTCGGCTACCTCACCTTCTACGACGGGGTGGAG  
 TCGGAGCTGCTGCACACCTACAGCAAGGTGGACCCGTTTGTGTGCTGATCTTGTGTGCGGAGTGGCC  
 GTTTCAGAACCAGGAGTTCAGCTGGTTCGGCAGGTGCTCATTGCCACTGGCCTGCTTACGTGCATCAAT  
 CTGCTGGTTATCTTCGCCCCAACATCTTGGGCATATTTGGGATCATTGGTGCCACATCTGCTCCGTGCC  
 TCATCTTCATCTTCCCTGCCATCTTCTACTTCCGAATCATGCCACTGACAAGGAGCCTGCAAGATCCAC  
 CCCTAAATCCTGGCCCTTTGTTTCGCTGCGGTTGGCTTCTGCTGATGACCATGAGCCTGAGTTTCATC  
 ATCATTGACTGGGTCTCTGGACCAGCCAGCATGGAGGAAACCAT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG220834 representing NM\_023805  
 Red=Cloning site Green=Tags(s)

MEIPRQTEMVELVPNGKHLEGLLPVGVPTTDTQRTEDTQHCGEKGFLQKSPSKEPHFTDFEGKTSFGMS  
 VFNLSNAIMGSGILGLAYAMANTGIILFLFLTAVALLSSYSIHLLKSSGIVGIRAYEQLGYRAFSTPG  
 KLAALAITLQNIAMSSYLIIKSELPLVIQTFNLNLEKPASVWYMDGNLVILVSVTIIILPLALMRQLG  
 YLGYSSGFLSCLMVFLIAVIYKFKVPCPLAHNLANATGNFSHMVVAEEKAQLQGEPTAAEAFCTPSY  
 FTLNSQTAYTIPIMAFVCHPEVLPITYELKDPKSRKMQHISNLSIAVMYVYFLAALFGYLFYDGV  
 SELLHTYSKVDPFDVILCVRVAVLIAVTLVPIVLPVRRAIQQMLFQNFQEFQSWLRHVLIAATGLLTCIN  
 LLVIFAPNILGIFGIIGATSAPCLIFIFPAIFYFRIMPTDKEPARSTPKILALCFAAVGFLMTMSLSFI  
 IIDWVSGTSQHGGNH

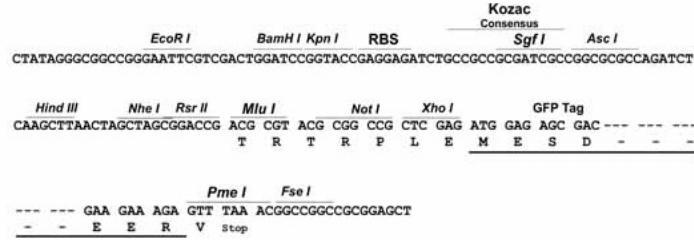
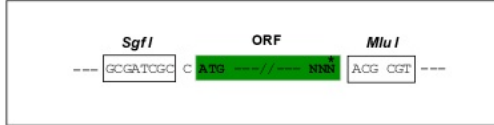
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

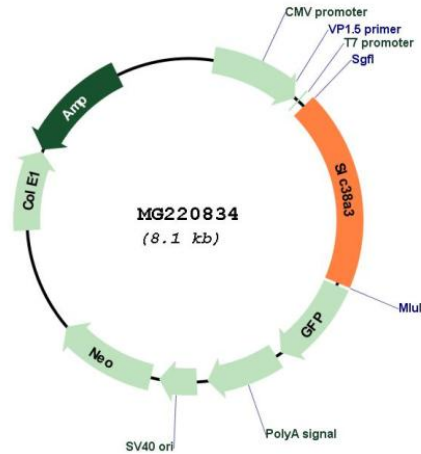
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_023805

ORF Size: 1515 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\\_023805.3](#), [NP\\_076294.2](#)

**RefSeq Size:** 2622 bp

**RefSeq ORF:** 1518 bp

**Locus ID:** 76257

**UniProt ID:** [Q9DCP2](#)

**Cytogenetics:** 9 58.69 cM

**Gene Summary:** Sodium-dependent amino acid/proton antiporter. Mediates electrogenic cotransport of glutamine and sodium ions in exchange for protons. Also recognizes histidine, asparagine and alanine. May mediate amino acid transport in either direction under physiological conditions. May play a role in nitrogen metabolism and synaptic transmission.  
[UniProtKB/Swiss-Prot Function]