

Product datasheet for **MG211305**

Slc8a1 (BC079673) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc8a1 (BC079673) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slc8a1
Synonyms:	AI852629; AV344025; D930008O12Rik; Ncx1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG211305 representing BC079673
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTTCGATTAAGTCTCCACCCAATGTTTCAATGGGATTTCTGCTGGTAGCTCTGGTGGCTCTCTTGT
 TTTCCCATGTTGACCATATAACTGCAGATACAGAGGCAGAAACAGGAGGAAATGAAACCACTGAATGTAC
 TGGCTCATATTACTGTAAGAAAGGGGTGATCTTGCCATTTGGGAACCCCAAGACCCATCTTTTGGGGAC
 AAAATTGCTAGAGCAACTGTGTATTTGTGGCCATGGTCTACATGTTCTTGGAGTTTCTATTATTGCAG
 ACCGGTTTATGTCCTCTATAGAGGTCACTACCTCTCAAGAGAAAGAAATAACGATAAAGAAACCGAATGG
 AGAGACCACCAAGACGACGGTGAGAATCTGGAACGAGACTGTGTCGAACCTGACCTTGATGGCCCTGGGA
 TCTTCTGCTCCTGAGATTCTCTGTCAGTCATTGAAGTGTGCGGCCATAACTTACCAGCAGGGGACCTGG
 GTCCCAGCACCATCGTGGGAAGTGTGCCTTTAACATGTTTCATCATAATCGCACTCTGTGTTACGTGGT
 CCCTGATGGAGAGACAAGGAAGATCAAGCATCTGCGTGTGTTCTTTGTGACAGCAGCCTGGAGCATCTTT
 GCCTATACCTGGCTTTATATAATCTTGTCTGTCAGCTCTCCTGGAGTTGTGGAGGTCTGGGAAGGCTTGC
 TTACTTTCTTCTTCTTTCCCATCTGCGTTGTGTTGCGGTGGTAGCAGACAGGCGGCTTCTCTTTTACAA
 GTATGTCTACAAGCGGTACAGGGCCGGCAAGCAGAGGGGGATGATCATTGAACATGAAGGAGACAGACCA
 GCTTCCAAAACCTGAAATCGAAATGGATGGGAAAGTGGTCAACTCTCATGTTGACAATTTCTTAGATGGGG
 CTCTGGTTTTGGAAGTTGATGAGAGGGACCAAGATGATGAGGAAGCCAGGCGTGAGATGGCAAGGATTCT
 GAAGGAACTTAAGCAGAAGCATCCTGAGAAAGAAATTGAGCAATTAATAGAATTAGCCAACCTACCAGGTC
 CTAAGTCAACAGCAGAAAAGCCGAGCATTTTACAGGATTCAAGCTACTCGCTGATGACCCGAGCTGGCA
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 TCTGGAGCTCGAGGAAATGTTATCATTCCCTACAAAACCTATTGAAGGCACAGCCGAGGTGGAGGGGAAG
 ACTTTGAGGACACCTGTGGAGAGCTCGAATTCAGAACGATGAAATAGTCAAAACAATATCAGTCAAGGT
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 ATGAGTGAGAAGAAAGGTGGCTTACATTAACAGGCCAACCTATCTTCAGGAAGGTCCATGCTAGAGATC
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 AGAGGAGGAGAGGCGCATTGCGGAAATGGGGCGCCCATCCTAGGCGAGCACACCAAGCTGGAGGTGATC
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 TCATGATCGGCCTACTGACCGCCTTCAATGGAGACCTGGCTTCCCACTTTGGCTGCACCATTGGTCTGAA
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 GCAGCTACCCAGGACCAGTATGCAGATGCGTCTATAGGCAATGTCAGTGAAGCAATGCTGTGAATGTCT
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 GTCCCCGGCACGCTAGCTTTCTGTCACTCTTCACTATTTTGTCTTTCATCAACGTGGGGTGTG
 CTGTATCGGCGGAGGCCAGAAATAGGAGGTGAGCTGGGAGGGCCCGGACTGCCAAGCTCCTCACATCTT
 CCCTGTTTGTGCTCCTGTGGCTTGTACATTTTCTTCTCCTCCCTGGAAGCCTACTGCCACATAAAGGG
 CTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG211305 representing BC079673
 Red=Cloning site Green=Tags(s)

MLRLSLPPNVSMGFRLVALVALLFSHVDHITADTEAETGGNETTECTGSYYCKKGVILPIWEPQDPSFGD
 KIARATVYFVAMVYMFVFLGVSIIADRFMSSIEVITSQKEITIKKPNGETTKTTVRIWNETVSNLTLMALG
 SSAPEILLSVIEVCGHNFTAGDLGPSTIVGSAFNMFIIALCVYVVPDGETRKHKLRFVFTAAWSIF
 AYTWLYIILSVSSPGVVEVWEGLLTFFFPICVVFVAVWADRRLLFYKYVYKRYRAGKQRGMIEHEGDRP
 ASKTEIEMDGKVVNSHVDNFDGALVLEVDERDQDDEEARREMARILKELKQKHPEKEIEQLIELANYQV
 LSQQQKSRAFYRIQATRLMTGAGNILKRHAADQARKAVSMHEVNMEMAENDPVSKIFFEQGTQCLENCG
 TVALTIMRRGGDLSTTVFVDFRTEGDTANAGSDYEFTEGTVIFKPGETQKEIRVGIIDDDIFEEDENFLV
 HLSNVRVSSDVSDEGILESNHASSIACLGSPSTATITIFDDDHAGIFTFEEPVTHVSESIGIMEVKVLR
 SGARGNVIIPYKTIEGTARGGGEDFEDTCGELEFQNDIEVKTISVKVIDDEEYEKNKTFEIEIGEPRLVE
 MSEKKGFFLTGQPIFRKVHARDHPIPSTVITISEEYDDKQPLTSKEEEERRIAEMGRPILGEHTKLEVI
 IEESYEFKSTVDKLIKKNLALVVGTSWREQFIEAITVSAGEDDDDDDECGEELPSCFDYVMHFLTVMW
 KVLFAFVPPTEYWNGWACFIVSILMIGLLTAFIGDLASHFGCTIGLKDSVTAVFVALGTSVPDTPASKV
 AATQDQYADASIGNVTGSNAVNVFLGIGVAWSIAAIYHAANGEQFKVSPGTLAFSVTLFTIFAFINVGLV
 LYRRRPEIGGELGGPRTAKLLTSSLFVLLWLLYIFFSSLEAYCHIKGF

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

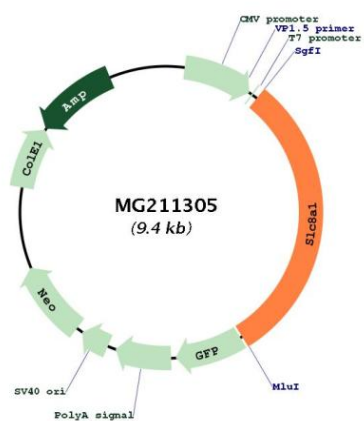


ACCN: BC079673

ORF Size: 2876 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:	<ol style="list-style-type: none">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:	BC079673 , AAH79673
RefSeq Size:	4032 bp
RefSeq ORF:	2876 bp
Locus ID:	20541
Cytogenetics:	17 51.29 cM
Gene Summary:	Mediates the exchange of one Ca(2+) ion against three to four Na(+) ions across the cell membrane, and thereby contributes to the regulation of cytoplasmic Ca(2+) levels and Ca(2+)-dependent cellular processes (PubMed:8659820). Contributes to Ca(2+) transport during excitation-contraction coupling in muscle. In a first phase, voltage-gated channels mediate the rapid increase of cytoplasmic Ca(2+) levels due to release of Ca(2+) stores from the endoplasmic reticulum. SLC8A1 mediates the export of Ca(2+) from the cell during the next phase, so that cytoplasmic Ca(2+) levels rapidly return to baseline (PubMed:10967099). Required for normal embryonic heart development and the onset of heart contractions (PubMed:10967099).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG211305