

Product datasheet for **MC229191**

Slc8a1 (NM_001286684) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc8a1 (NM_001286684) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Slc8a1
Synonyms:	AI852629; AV344025; D930008O12Rik; Ncx1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC229191 representing NM_001286684
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTTCGATTAAGTCTCCACCCAATGTTTCAATGGGATTTCTGCTGGTAGCTCTGGTGGCTCTCTTGT
 TTTCCCATGTTGACCATATAACTGCAGATACAGAGGCAGAAACAGGAGAAATGAAACCACTGAATGTAC
 TGGCTCATATTACTGTAAGAAAGGGGTGATCTTGCCATTTGGGAACCCCAAGACCCATCTTTTGGGGAC
 AAAATTGCTAGAGCAACTGTGTATTTGTGGCCATGGTCTACATGTTCTTGGAGTTTCTATTATTGCAG
 ACCGGTTTATGTCCTCTATAGAGGTCATCACCTCTCAAGAGAAAGAAATAACGATAAAGAAACCGAATGG
 AGAGACCACCAAGACGACGGTGAGAATCTGGAACGAGACTGTGTCGAACCTGACCTTGATGGCCCTGGGA
 TCTTCTGCTCCTGAGATTCTCTGTCAGTCATTGAAGTGTGCGGCCATAACTCACCGCAGGGGACCTGG
 GTCCCAGCACCATCGTGGGAAGTGTGCCTTTAACATGTTTCATCATAATCGCACTCTGTGTTACGTGGT
 CCCTGATGGAGAGACAAGGAAGATCAAGCATCTGCGTGTGTTCTTTGTGACAGCAGCCTGGAGCATCTTT
 GCCTATACCTGGCTTTATATAATCTTGTCTGTCAGCTCTCCTGGAGTTGTGGAGGTCTGGGAAGGCTTGC
 TTACTTTCTTCTTTCCCATCTGCGTTGTGTTGCGGTGGGTAGCAGACAGGCGGCTTCTCTTTTACAA
 GTATGTCTACAAGCGGTACAGGGCCGGCAAGCAGAGGGGGATGATCATTGAACATGAAGGAGACAGACCA
 GCTTCCAAAACCTGAAATCGAAATGGATGGGAAAGTGGTCAACTCTCATGTTGACAATTTCTTAGATGGGG
 CTCTGGTTTTGGAAGTTGATGAGAGGGACCAAGATGATGAGGAAGCCAGGCGTGAGATGGCAAGGATTCT
 GAAGGAACTTAAGCAGAAGCATCCTGAGAAAGAAATTGAGCAATTAATAGAATTAGCCAACCTACCAGGTC
 CTAAGTCAACAGCAGAAAAGCCGAGCATTTTACAGGATTCAAGCTACTCGCTGATGACCCGAGCTGGCA
 ACATCTTGAAGAGGCACGAGCTGATCAAGCAAGGAAGGCTGTGATGATGATGAAGTCAACATGGAAAT
 GGCTGAAAACGACCCAGTCAGTAAGATCTTCTTTGAGCAAGGAACATACCAGTGTCTAGAGAAGTGTGGT
 ACTGTGGCCCTCACCAATTATGCGCAGAGGGGGCGACTTGAGCACCCTGTGTTTGTGACTTCAGGACAG
 AAGACGGCACAGCCAATGCTGGGTCTGATTATGAATTCACGGAAGGGACTGTGATCTTCAAACAGGGGA
 GACCCAGAAGGAAATCAGAGTTGGCATCATTGATGATGATATCTTTGAAGAAGATGAAAACCTCCTTGTG
 CATCTTAGCAATGTCAGAGTCTCTTTCAGATGTTTCAGAAGATGGCATACTAGAATCCAATCACGCTTCTT
 CAATTGCTTGTCTGGGTACCCAGCACTGCCACCATAACCAATTTTGTGATGACCATGCAGGCATCTT
 TACATTTGAGGAACCCGTGACTCACGTGAGCGAGAGCATTGGCATCATGGAGGTGAAGGTTTTGAGAACC
 TCTGGAGCTCGAGGAAATGTTATCATTCCCTACAAAACCTATTGAAGGCACAGCCGAGGTGGAGGGGAAG
 ACTTTGAGGACACCTGTGGAGAGCTCGAATTCAGAACGATGAAATAGTCAAAACAAATATCAGTCAAGGT
 AATCGATGACGAGGAGTATGAGAAAAACAAGACCTTCTTCATTGAGATTGGAGAGCCCGCTCGGTGGAG
 ATGAGTGAGAAGAAAGCCCTGTTGTTGAATGAGCTTGGTGGCTTACATTAACAGGAAAAGAGATGTATG
 GCCAACCTATCTTCAGGAAGGTCCATGCTAGAGATCATCCGATCCCTCTACTGTAATCACCATCTCAGA
 GGAATATGATGACAAGCAGCCACTGACCAGCAAAGAAGAGGAGGAGAGGCGCATTGCGGAAATGGGGCGC
 CCCATCCTAGGCGAGCACACCAAGCTGGAGGTGATCATCGAAGAGTCTTACGAATTAAGAGCACTGTGG
 ACAAACTCATTAAAGAAGCAGAACCTGGCCCTTGTGGTGGGACCAACAGCTGGAGAGAGCAGTTTATCGA
 AGCCATCACTGTCAGCGCTGGGGAAGATGACGATGATGATGAATGTGGGAGGAGAAGCTGCCCTCCTGT
 TTTGATTACGTGATGCACTTTCTCACAGTGTCTGGAAGGTTCTGTTTGCCTTCGTCACCTACAGAAT
 ACTGGAATGGCTGGCCCTGCTTCAATGTCTCCATCCTCATGATCGGCCTACTGACCGCTTCATTGGAGA
 CCTGGCTTCCACTTTGGCTGCACCATTGGTCTGAAAGATTCCGTGACTGCCGTTGTGTTTGTGCTCTT
 GGAACCTCGGTGCCAGACACATTTGCCAGCAAAGTAGCAGCTACCCAGGACCAAGTATGCAGATGCGTCTA
 TAGGCAATGTCAGTGAAGCAATGCTGTGAATGCTTCTCGGAAATCGGCGTGGCTGGTCCATTGCTGC
 CATCTACCATGCGGCCAACGGGAACAGTTCAAAGTGTCCCCGGCAGCTAGCTTTCTCTGCTACTCTC
 TTCATATTTTGTCTTTCATCAACGTGGGGTGTGCTGTATCGGCGGAGGCCAGAAATAGGAGCCATCT
 TCGGAATGTCAATAATTCT**GTAG**

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN:	NM_001286684
Insert Size:	2823 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<u>NM_001286684.1</u> , <u>NP_001273613.1</u>
RefSeq Size:	15847 bp
RefSeq ORF:	2823 bp
Locus ID:	20541
Cytogenetics:	17 51.29 cM
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (C) lacks an internal segment in the 3' terminal exon, which results in an alternate stop codon, compared to variant A. The resulting isoform (C) has a shorter and distinct C-terminus, compared to isoform A. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.</p>