

## Product datasheet for **MR225695**

### **Slc8a1 (NM\_001112798) Mouse Tagged ORF Clone**

#### **Product data:**

<b>Product Type:</b>	Expression Plasmids
<b>Product Name:</b>	Slc8a1 (NM_001112798) Mouse Tagged ORF Clone
<b>Tag:</b>	Myc-DDK
<b>Symbol:</b>	Slc8a1
<b>Synonyms:</b>	AI852629; AV344025; D930008O12Rik; Ncx1
<b>Mammalian Cell Selection:</b>	Neomycin
<b>Vector:</b>	pCMV6-Entry (PS100001)
<b>E. coli Selection:</b>	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR225695 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGCTTCGATTAAGTCTCCACCCAATGTTTCAATGGGATTTCTGTCGGTAGCTCTGGTGGCTCTCTTGT  
TTTCCCATGTTGACCATATAACTGCAGATACAGAGGCAGAAACAGGAGGAAATGAAACCACTGAATGTAC  
TGGCTCATATTACTGTAAGAAAGGGGTGATCTTGCCCATTTGGGAACCCCAAGACCCATCTTTTGGGGAC  
AAAATTGCTAGAGCAACTGTGTATTTGTGGCCATGGTCTACATGTTCTTGGAGTTTCTATTATTGCAG  
ACCGGTTTATGTCCTCTATAGAGGTCATCACCTCTCAAGAGAAAGAAATAACGATAAAGAAACCGAATGG  
AGAGACCACCAAGACGACGGTGAGAATCTGGAACGAGACTGTGTCGAACCTGACCTTGATGGCCCTGGGA  
TCTTCTGCTCCTGAGATTCTCTGTCAGTCATTGAAGTGTGGCCATAACTTCACCGCAGGGGACCTGG  
GTCCCAGCACCATCGTGGGAAGTGTGCCTTTAACATGTTTCATCATAATCGCACTCTGTGTTACGTGGT  
CCCTGATGGAGAGACAAGGAAGATCAAGCATCTGCGTGTGTTCTTTGTGACAGCAGCCTGGAGCATCTTT  
GCCTATACCTGGCTTTATATAATCTTGTCTGTCAGCTCTCCTGGAGTTGTGGAGGTCTGGGAAGGCTTGC  
TTACTTTCTTCTTCTTCCCATCTGCGTTGTGTTGCGGTGGTAGCAGACAGGCGGCTTCTCTTTTACAA  
GTATGTCTACAAGCGGTACAGGGCCGGCAAGCAGAGGGGGATGATCATTGAACATGAAGGAGACAGACCA  
GCTTCCAAAACGAAATCGAAATGGATGGGAAAGTGGTCAACTCTCATGTTGACAATTTCTTAGATGGGG  
CTCTGGTTTTGGAAGTTGATGAGAGGGACCAAGATGATGAGGAAGCCAGGCGTGAGATGGCAAGGATTCT  
GAAGGAACTTAAGCAGAAGCATCCTGAGAAAGAAATTGAGCAATTAATAGAATTAGCCAACCTACCAGGTC  
CTAAGTCAACAGCAGAAAAGCCGAGCATTTTACAGGATTCAAGCTACTCGCTGATGACCGGAGCTGGCA  
ACATCTTGAAGAGGCACGCAGCTGATCAAGCAAGGAAGGCTGTGATGATGCAATGAAGTCAACATGGAAAT  
GGCTGAAAACGACCCAGTCAGTAAGATCTTCTTTGAGCAAGGAACATACCAGTGTCTAGAGAACTGTGGT  
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AAGACGGCACAGCCAATGCTGGGTCTGATTATGAATTCACGGAAGGGACTGTGATCTTCAAACAGGGGA  
GACCCAGAAGGAAATCAGAGTTGGCATCATTGATGATGATATCTTTGAAGAAGATGAAAACCTCCTTGTG  
CATCTTAGCAATGTCAGAGTCTCTTTCAGATGTTTCAGAAGATGGCATACTAGAATCCAATCACGCTTCTT  
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ATCCGATTCCTCTACTGTAATCACCATCTCAGAGGAATATGATGACAAGCAGCCACTGACCAGCAAAGA  
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CTGTATCGGCGGAGGCCAGAAATAGGAGGTGAGCTGGGAGGGCCCGGACTGCCAAGCTCCTCACATCTT  
CCCTGTTTGTGCTCCTGTGGCTTGTACATTTTCTTCTCCTCCCTGGAAGCCTACTGCCACATAAAGGG  
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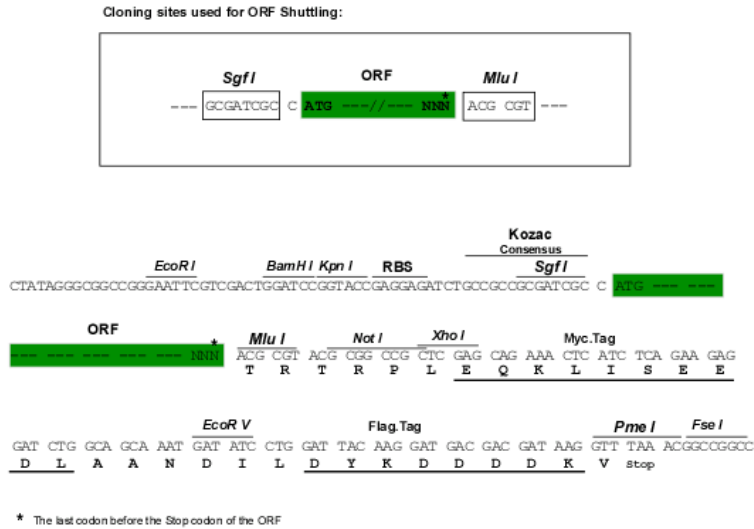
**Protein Sequence:** >MR225695 protein sequence  
 Red=Cloning site Green=Tags(s)

MLRLSLPPNVSMGFRLVALVALLFSHVDHITADTEAETGGNETTECTGSYYCKKGVILPIWEPQDPSFGD  
 KIARATVYFVAMVYMFVFLGVSIIADRFMSSIEVITSQEKEITIKKPNGETTKTTVRIWNETVSNLTLMALG  
 SSAPEILLSVIEVCGHNFTAGDLGPSTIVGSAAFNMFIIALCVYVVPDGETRRIKHLRVFFVTAWSIF  
 AYTWLYIILSVSSPGVVEVWEGLLTFFFPICVVFVAWADRRLLFYKYVYKRYRAGKQRGMIEHEGDRP  
 ASKTEIEMDGKVVNSHVDNFDGALVLEVDERDQDDEEARREMARILKELKQKHPEKEIEQLIELANYQV  
 LSQQQKSRAFYRIQATRLMTGAGNILKRHAADQARKAVSMHEVNMEMAENDPVSKIFFEQGTQCLENCG  
 TVALTIMRRGGDLSTTVFVDFRTEGDTANAGSDYEFTEGTVIFKPGETQKEIRVGIIDDDIFEEDENFLV  
 HLSNVRVSSDVSSEGGILESNHASSIACLGSPSTATITIFDDDHAGIFTEEPVTHVSESIGIMEVKVLR  
 SGARGNVIIPYKTIEGTARGGGEDFEDTCGELEFQNDIEVKTISVKVIDDEEYEKNKTFEIEIGEPRLVE  
 MSEKKGFTLTGQPIFRKVHARDHPIPSTVITISEEYDDKQPLTSKEEEERRIAEMGRPILGEHTKLEVI  
 IEESYEFKSTVDKLIKKNLALVVGTSWREQFIEAITVSAGEDDDDDDECGEELPSCFDYVMHFLTVFW  
 KVLFAFVPPTEYWNGWACFIVSILMIGLLTAFIGDLASHFGCTIGLKDSVTAVFVALGTSVPDTFASKV  
 AATQDQYADASIGNVTGSNAVNVFLGIGVAWSIAAIYHAANGEQFKVSPGTLAFSVTLFTIFAFINVGLV  
 LYRRRPEIGGELGGPRTAKLLTSSLFVLLWLLYIFFSSLEAYCHIKGF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

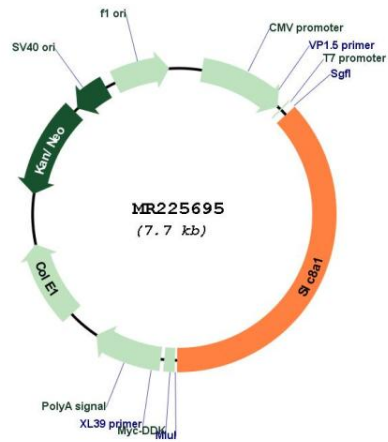


**ACCN:** NM\_001112798

**ORF Size:** 2877 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001112798.2</a> , <a href="#">NP_001106269.1</a>
<b>RefSeq Size:</b>	18573 bp
<b>RefSeq ORF:</b>	2877 bp
<b>Locus ID:</b>	20541
<b>Cytogenetics:</b>	17 51.29 cM
<b>MW:</b>	106.7 kDa
<b>Gene Summary:</b>	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 MR225695