

Product datasheet for **MR225928**

Slc8a1 (NM_011406) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc8a1 (NM_011406) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Slc8a1
Synonyms:	AI852629; AV344025; D930008O12Rik; Ncx1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225928 representing NM_011406
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTTCGATTAAGTCTCCACCCAATGTTTCAATGGGATTTCTGCTGGTAGCTCTGGTGGCTCTCTTGT
 TTCCCATGTTGACCATATAACTGCAGATACAGAGGCAGAAACAGGAGGAAATGAAACCACTGAATGTAC
 TGGCTCATATTACTGTAAGAAAGGGGTGATCTTGCCATTTGGGAACCCCAAGACCCATCTTTTGGGGAC
 AAAATTGCTAGAGCAACTGTGTATTTGTGGCCATGGTCTACATGTTCTTGGAGTTTCTATTATTGCAG
 ACCGGTTTATGTCCTCTATAGAGGTCACTACCTCTCAAGAGAAAGAAATAACGATAAAGAAACCGAATGG
 AGAGACCACCAAGACGACGGTGAGAATCTGGAACGAGACTGTGTCGAACCTGACCTTGATGGCCCTGGGA
 TCTTCTGCTCCTGAGATTCTCTGTCAGTCATTGAAGTGTGCGGCCATAACTCACCGCAGGGGACCTGG
 GTCCCAGCACCATCGTGGGAAGTGTGCCTTTAACATGTTTCATCATAATCGCACTCTGTGTTACGTGGT
 CCCTGATGGAGAGACAAGGAAGATCAAGCATCTGCGTGTGTTCTTTGTGACAGCAGCCTGGAGCATCTTT
 GCCTATACCTGGCTTTATATAATCTTGTCTGTCAGCTCTCCTGGAGTTGTGGAGGTCTGGGAAGGCTTGC
 TTACTTTCTTCTTTCCCATCTGCGTTGTGTTGCGGTGGGTAGCAGACAGGCGGCTTCTCTTTTACAA
 GTATGTCTACAAGCGGTACAGGGCCGGCAAGCAGAGGGGGATGATCATTGAACATGAAGGAGACAGACCA
 GCTTCCAAAACGAAATCGAAATGGATGGGAAAGTGGTCAACTCTCATGTTGACAATTTCTTAGATGGGG
 CTCTGGTTTTGGAAGTTGATGAGAGGGACCAAGATGATGAGGAAGCCAGGCGTGAGATGGCAAGGATTCT
 GAAGGAACTTAAGCAGAAGCATCCTGAGAAAGAAATTGAGCAATTAATAGAATTAGCCAACCTACCAGGTC
 CTAAGTCAACAGCAGAAAAGCCGAGCATTTTACAGGATTCAAGCTACTCGCTGATGACCGGAGCTGGCA
 ACATCTTGAAGAGGCACGCAGCTGATCAAGCAAGGAAGGCTGTGATGATGATGAAGTCAACATGGAAAT
 GGCTGAAAACGACCCAGTCAGTAAGATCTTCTTTGAGCAAGGAACATACCAGTGTCTAGAGAAGTGTGGT
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 AAGACGGCACAGCCAATGCTGGGTCTGATTATGAATTCACGGAAGGGACTGTGATCTTCAAACAGGGGA
 GACCCAGAAGGAAATCAGAGTTGGCATCATTGATGATGATATCTTTGAAGAAGATGAAAACCTTCTTGTG
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 CAATTGCTTGTCTGGGTACCCAGCACTGCCACCATAACCATTTTTGATGATGACCATGCAGGCATCTT
 TACATTTGAGGAACCCGTGACTCACGTGAGCGAGAGCATTGGCATCATGGAGGTGAAGGTTTTGAGAACC
 TCTGGAGCTCGAGGAAATGTTATCATTCCCTACAAAACCTATTGAAGGCACAGCCGAGGTGGAGGGGAAG
 ACTTTGAGGACACCTGTGGAGAGCTCGAATTCAGAACGATGAAATAGTCAAAACAAATATCAGTCAAGGT
 AATCGATGACGAGGAGTATGAGAAAAACAAGACCTTCTTCATTGAGATTGGAGAGCCCGCTCGGTGGAG
 ATGAGTGAGAAGAAAGCCCTGTTGTTGAATGAGCTTGGTGGCTTACATTAACAGGAAAAGAGATGTATG
 GCCAACCTATCTTCAGGAAGGTCCATGCTAGAGATCATCCGATCCCTCTACTGTAATCACCATCTCAGA
 GGAATATGATGACAAGCAGCCACTGACCAGCAAAGAAGAGGAGGAGAGGCGCATTGCGGAAATGGGGCGC
 CCCATCTAGGCGAGCACACCAAGCTGGAGGTGATCATCGAAGAGTCTTACGAATTAAGAGCACTGTGG
 ACAAACTCATTAAAGAAGCAGAACCTGGCCCTTGTGGTGGGGACCAACAGCTGGAGAGAGCAGTTTATCGA
 AGCCATCACTGTCAGCGCTGGGGAAGATGACGATGATGATGAATGTGGGAGGAGAAGCTGCCCTCCTGT
 TTTGATTACGTGATGCACTTTCTCACAGTGTCTGGAAGGTTCTGTTTGCCTTCGTCACCTACAGAAT
 ACTGGAATGGCTGGCCCTGCTTCAATGTCTCCATCCTCATGATCGGCCTACTGACCGCTTCAATTGGAGA
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 GGAACCTCGGTGCCAGACACATTTGCCAGCAAAGTAGCAGCTACCCAGGACCAAGTATGCAGATGCGTCTA
 TAGGCAATGTCAGTGAAGCAATGCTGTGAATGCTTCTCGGAAATCGGCGTGGCTGGTCCATTGCTGC
 CATCTACCATGCGGCCAACGGGAACAGTTCAAAGTGTCCCCGGCAGCTAGCTTTCTCTGCTACTCTC
 TTCATATTTTTGCTTTTCAACGTGGGGTGTGCTGTATCGGCGGAGGCCAGAAATAGGAGGTGAGC
 TGGGAGGGCCCCGACTGCCAAGCTCCTCACATCTCCCTGTTTGTGCTCCTGTGGCTCTGTACATTTT
 CTCTCCTCCCTGGAAGCCTACTGCCACATAAAGGGCTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR225928 representing NM_011406
 Red=Cloning site Green=Tags(s)

MLRLSLPPNVSMGFRLVALVALLFSHVDHITADTEAETGGNETTECTGSYYCKKGVILPIWEPQDPSFGD
 KIARATVYFVAMVYMFVLGVSIIADRFMSSIEVITSQEKEITIKKPNGETTKTTVRIWNETVSNLTLMALG
 SSAPEILLSVIEVCGHNFTAGDLGPSTIVGSAAFNMFIIALCVYVVPDGETRGIKHLRVFFVTAAWSIF
 AYTWLYIILSVSSPGVVEVWEGLLTFFFPICVVFVAVADRRLLFYKYVYKRYRAGKQRMIEHEGDRP
 ASKTEIEMDGKVVNSHVDNFDGALVLEVDERDQDDEEARREMARILKELKQKHPEKEIEQLIELANYQV
 LSQQQKSRAFYRIQATRLMTGAGNILKRHAADQARKAVSMHEVNMEMAENDPVSKIFFEQGTQCLENCG
 TVALTIMRRGGDLSTTVFVDFRTEGTANAGSDYEFTEGTVIFKPGETQKEIRVGIIDDDIFEEDENFLV
 HLSNVRVSSDVSDEGILES NHASSIACLGSPSTATITIFDDDHAGIFTEEPVTHVSESIGIMEVKVLR
 SGARGNVIIPYKTIIEGTARGGGEDFEDTCGELEFQNDIVKTVSVKVIDDEEYKNTFFIEIGEPRLVE
 MSEKKALLLNELGGFTLTGKEMYGQPIFRKVHARDHPIPSTVITISEEYDDKQPLTSKEEEEERIAEMGR
 PILGEHTKLEVIIEESYEFKSTVDKLIKTNLALVVGTSWREQIEAITVSAGEDDDDDCEGEEKLPSC
 FDYVMHFLT VFWKVLFAFVPPTEYWNGWACFIVSILMIGLLTAFIGDLASHFGCTIGLKDSVTAVVFAV
 GTSVPTDFASKVAATQDQYADASIGNVTGSNAVNVFLGIGVAWSIAAIYHAANGEQFKVSPGTAFSVTL
 FTIFAFINVGVLRYRRRPEIGGELGGPRTAKLLTSSLFVLLWLLYIFFSSLEAYCHIKGF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9002_g02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



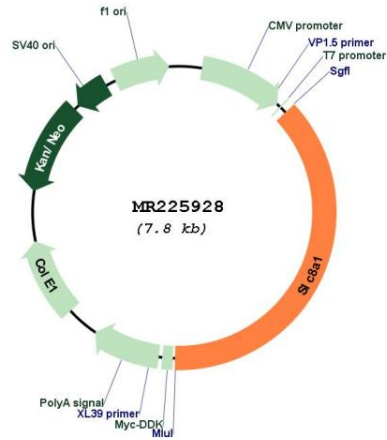
* The last codon before the Stop codon of the ORF

ACCN: NM_011406

ORF Size: 2910 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:	NM_011406.3 , NP_035536.2
RefSeq Size:	18599 bp
RefSeq ORF:	2913 bp
Locus ID:	20541
UniProt ID:	P70414
Cytogenetics:	17 51.29 cM
MW:	108.5 kDa
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 MR225928