

Product datasheet for **MC219111**

Slc8b1 (NM_001177594) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc8b1 (NM_001177594) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Slc8b1
Synonyms:	AF261233; NCKX6; NCLX; Slc24a6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC219111 representing NM_001177594
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAAGCAGATGGCTGGCTCTGCTCTGGGCTCTGTCTTCCTCTGTGTGGCTCTGATACTGGAGACGG
 CGTCTGGGACCGGAGACCCATCCACAAAAGCCCATGGACACATCCAGTTTTTCAGCTGGAAGTGCAACCA
 GACTGCCATGGCGGATTGCCGAGCCGTGTGTGGCCTGAACACATCTGATCGCTGTGACTTTGTCAGGAGG
 AATCCGGACTGCCGACGAGCGGGGCTACCTGGACTACCTTGAGGGCATCTTCTGCTACTTCCCCCCA
 ACCTCCTCCCTCTGGCCATCACCTCTACGTTTTCTGGCTGCTTTACCTCTTCTGATCTGGGAGTCAC
 CGCGGCCAAGTCCCCATGGTGTACCTTCTGGCCTTTGAAATGGCGCTCCAGACATCTTCAGTGCT
 TTAGTGGCTTTCTCAGACCCACGTACTGCCGCCTGGCCATCGGGGCTCTGTTTGGTGCAGGGGTGCTGG
 TCACCACTGTGGTGGCTGGAGGCATCCATCCTGCATCCCTTCATGGCTGCCTCCAGGCCCTTCTCAG
 GGACATCGCTTTCTACATGGTGGCTGTGTCTAACCTTCACTGCACTCTATCTCGGCAGGATCACGCTG
 ACGTGGGCGCTGGGTTACCTGGGCCTCTACGTGTTCTACGTGGTACGGTCATCATCTGCACTTGGGTCT
 ACCAACGGCAGCGAAGCAGGTCTCTGGTCCACTCCATATCGGAGACACCAGAGTTGCTGTCTGAGTCAGA
 GGAGGACCAGATGCTTCCAACACCAACAGCTATGACTATGGAGATGAATACCGGCCTCTGTTGCTGGGT
 CGGGAGACCAGTGTCCAGATCCTGATCCAAGCCCTGAATCCCTTGGACTACAGGAAGTGGAGAACTCAGT
 CGATATCCTGGAGGGTCTGAAGGTAGTCAAGTTGCCTGTGGAGTTCTTGTGCTGCTCACAGTACCGGT
 TGTGGACCCCGACAAGGACGATCGGAATTGAAACGGCCACTCACTGTCTGCAGCTGGTCATCAGCCCC
 CTGGTCTGGTCTGACCCTGCAGTCGGGGTCTATGGCATCTATGAGATCGGCGGTCTCCTTCTGTCT
 GGGCTGTGGTGGTATCGTGGCACAGCGCTGGCTTCACTGACCTCTTTGCCACGTAAACAGAGAACC
 CCTAGACTGCACTGGCTCTTTGCTTTCTGGGTTTCTGACCAGTGCCTGTGGATCAATGCAGCCGCC
 ACAGAGGTGGTGAACATATTACGGTCCCTGGGTGTGATCTCCGCCTGAGCAACACCGTCTAGGGCTGA
 CCCTCCTGGCCTGGGAAACAGCATTGGAGATGCCTTCTCAGATTTACGCTGGCCCGCAAGGATACCC
 TCGGATGGCCTTCTCCGCTGTTTCCGGGGCATCATCTCAACATCCTGGTTGGTGTGGGCTGGGCTGC
 TTGCTGCAGATCATCAGGAACCAGTGTGGAGGTGAAGCTGGAGCCAGACGGATTACTGGTGTGGGTGC
 TGGCCAGTGCCCTGGCCTCAGCTTGTCTTCTCCCTGGTCTCCGTGCCGCTTCACTGTTCCAGCTCAG
 CAAGGCTTACGGCCTCTGCCTCCTCTTCTACATCTGTTTCTTGTGTGGTCTGCTCACAGAGTTT
 GGGGTGATTCACCTGAAGAAGGCG**TGA**

ACGGCTACGGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001177594

Insert Size: 1707 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).

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_001177594.1](#), [NP_001171065.1](#)

RefSeq Size: 2823 bp

RefSeq ORF: 1707 bp

Locus ID: 170756

UniProt ID: [Q925Q3](#)

Cytogenetics: 5 F

Gene Summary: Mitochondrial sodium/calcium antiporter that mediates sodium-dependent calcium efflux from mitochondrion, by mediating the exchange of 3 sodium ions per 1 calcium ion (PubMed:20018762, PubMed:28445457). Plays a central role in mitochondrial calcium homeostasis by mediating mitochondrial calcium extrusion: calcium efflux is essential for mitochondrial function and cell survival, notably in cardiomyocytes (PubMed:24067497, PubMed:28445457). Regulates rates of glucose-dependent insulin secretion in pancreatic beta-cells during the first phase of insulin secretion: acts by mediating efflux of calcium from mitochondrion, thereby affecting cytoplasmic calcium responses (By similarity). Required for store-operated Ca(2+) entry (SOCE) and Ca(2+) release-activated Ca(2+) (CRAC) channel regulation: sodium transport by SLC8B1 leads to promote calcium-shuttling that modulates mitochondrial redox status, thereby regulating SOCE activity (By similarity). Involved in B-lymphocyte chemotaxis (PubMed:27328625). Able to transport Ca(2+) in exchange of either Li(+) or Na(+), explaining how Li(+) catalyzes Ca(2+) exchange (By similarity). In contrast to other members of the family its function is independent of K(+) (By similarity).

[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks an alternate exon and uses an alternate splice site, compared to variant 1. The resulting isoform (2) differs at an internal segment, compared to isoform 1. 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 transcript alignments.