

Product datasheet for **MC218871**

Slc8b1 (NM_001177595) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc8b1 (NM_001177595) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Slc8b1
Synonyms:	AF261233; NCKX6; NCLX; Slc24a6
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC218871 representing NM_001177595
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAAGCAGATGGCTGGCTCTGCTCTGGGCTCCTGTCTTCCTCTGTGTGGCTCTGATACTGGAGACGG
 CGTCTGGGACCGGAGACCCATCCACAAAAGCCCATGGACACATCCAGTTTTTCAGCTGGAAGTGCAACCA
 GACTGCCATGGCGGATTGCCGAGCCGTGTGTGGCTGAACACATCTGATCGCTGTGACTTTGTCAGGAGG
 AATCCGGACTGCCGAGCGAGGCGGGCTACCTGGACTACCTTGAGGGCATCTTCTGCTACTTCCCCCCCA
 ACCTCCTCCCTCTGGCCATCACCTCTACGTTTTCTGGCTGCTTTACCTCTTTCTGATCTGGGAGTCAC
 CGCGGCCAAGTTCTTCTGCCCTAACCTGTCAGCCATCTCCACTAACCTCAAACCTCCCACAACGTGGCA
 GGTGTCACCTTCTGGCCTTTGGAAATGGCGCTCCAGACATCTCAGTGTCTTAGTGGCTTTCTCAGACC
 CACGTAAGTCCCGCTGGCCATCGGGCTCTGTTTGGTGCAGGGGTGCTGGTACCCTGTGGTGGCTGG
 AGGCATCACCATCTGCATCCCTTCATGGCTGCCTCCAGGCCCTCCTCAGGGACATCGCTTTCTACATG
 GTGGCTGTGTTCCAACTTCACTGCACCTATCTCGGCAGGATCACGCTGACGTGGGCGCTGGGTACC
 TGGGCCTCTACGTGTTCTACGTGGTACGGTACATCATCTGCACCTGGGTCTACCAACGGCAGCGAAGCAG
 GTCTCTGGTCCACTCCATATCGGAGACACCAGAGTTGCTGTCTGAGTCAAGGAGGACCAGATGTCTTCC
 AACACCAACAGCTATGACTATGGAGATGAATACCGGCCTCTGTTGCTGGGTCGGGAGACCACTGTCCAGA
 TCCTGATCCAAGCCCTGAATCCCTTGGACTACAGGAAGTGGAAGTCAAGTCAAGTCAAGTCAAGTCAAGT
 GAAGGTAGTCAAGTTGCCTGTGGAGTTCTTGTGCTGCTCACAGTACCGGTTGTGGACCCCGACAAGGAC
 GATCGGAATTGGAACGGCCACTCAACTGTCTGCAGCTGGTCAACAGAGAGAGAGAGAGAGAGAGAGAGAG
 TGCAGTGGGGTCTATGGCATCTATGAGATCGGCGGTCTCCTTCTGCTGGGCTGTGGTGGTATCGT
 GGGCACAGCGCTGGCTTCAAGTACCTTCTTTGCCACGTCTAACAGAGAACCCCTAGACTGCACCTGGCTC
 TTTGCTTTCTGGGTTTCTGACCAGTGCCTGTGGATCAATGCAGCCGCCACAGAGGTGGTGAACATAT
 TACGGTCCCTGGGTGTGATCTTCCGCTGAGCAACACCGTCTAGGGCTGACCCTCTGGCCTGGGGAAA
 CAGCATTGGAGCTGGAGCCAGACGGATTACTGGTGTGGGTGCTGGCCAGTGCCTGGCCTCAGCTTGTG
 CTTCTCCCTGGTCTCCGTGCCGCTTCAAGTGTTCAGCTCAGCAAGGCTTACGGCCTCTGCCTCCTCCTC
 TTCTACATCTGTTTCTGTTGTGGTCTGCTCACAGAGTTGGGGTATTACCTGAAGAAGGCGGTGAC
 TGAAGCTGCTGGCCTAGAGGTGTGGGGCGATTCTGCTAGCCTCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_001177595
- Insert Size:** 1659 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_001177595.1](#), [NP_001171066.1](#)

RefSeq Size: 2725 bp

RefSeq ORF: 1659 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 (3) lacks two alternate in-frame exons in the 3' coding region, compared to variant 1. The resulting isoform (3) lacks an internal segment near the C-terminus, 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.