

## Product datasheet for **MC219330**

### **Slc8b1 (NM\_133221) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Slc8b1 (NM_133221) 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:** >MC219330 representing NM\_133221  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAAGCAGATGGCTGGCTGCTCTGGGCTCCTGTCTTCCTCTGTGTGGCTCTGATACTGGAGACGG  
 CGTCTGGGACCGGAGACCCATCCACAAAAGCCCATGGACACATCCAGTTTTTCAGCTGGAAGTGCAACCA  
 GACTGCCATGGCGGATTGCCGAGCCGTGTGTGGCTGAACACATCTGATCGCTGTGACTTTGTCAGGAGG  
 AATCCGGACTGCCGAGCGAGGCGGGCTACCTGGACTACCTTGAGGGCATCTTCTGCTACTTCCCCCCCCA  
 ACCTCCTCCCTCTGGCCATCACCTCTACGTTTTCTGGCTGCTTTACCTCTTTCTGATCTGGGAGTCAC  
 CGCGGCCAAGTTCTTCTGCCCTAACCTGTCAGCCATCTCCACTAACCTCAAACCTCCCACAACGTGGCA  
 GGTGTCACCTTCTGGCCTTTGGAAATGGCGCTCCAGACATCTCAGTGTCTTAGTGGCTTTCTCAGACC  
 CACGTAAGTCCCGCTGGCCATCGGGCTCTGTTTGGTGCAGGGGTGCTGGTACCAGTGTGGTGGCTGG  
 AGGCATCACCATCTGCATCCCTTCATGGCTGCCTCCAGGCCCTCCTCAGGGACATCGCTTTCTACATG  
 GTGGCTGTGTTCCCTAACCTTCACTGCACCTATCTCGGCAGGATCACGCTGACGTGGGCGCTGGGTACC  
 TGGGCCTCTACGTGTTCTACGTGGTACCGTCATCATCTGCACCTGGGTCTACCAACGGCAGCGAAGCAG  
 GTCTCTGGTCCACTCCATATCGGAGACACCAGAGTTGCTGTCTGAGTCAAGGAGGAGGACCAGATGTCTCC  
 AACACCAACAGCTATGACTATGGAGATGAATACCGGCCTCTGTTGCTGGGTCGGGAGACCACTGTCCAGA  
 TCCTGATCCAAGCCCTGAATCCCTTGGACTACAGGAAGTGGAAGTCAAGTCAAGTCAAGTCAAGTCAAGT  
 GAAGGTAGTCAAGTTGCCTGTGGAGTTCTTGTGCTGCTCACAGTACCGGTTGTGGACCCCGACAAGGAC  
 GATCGGAATTGGAACCGCCACTCAACTGTCTGCAGCTGGTATCAGCCCCCTGGTCTGGTCTGACCC  
 TGCAGTCGGGGTCTATGGCATCTATGAGATCGGCGGTCTCCTTCTGTCTGGGCTGTGGTGGTATCGT  
 GGGCACAGCGCTGGCTTCAAGTACCTTCTTGGCACGTCTAACAGAGAACCCCTAGACTGCACTGGCTC  
 TTTGCTTCTGGGTTTCTGACCAGTGCCTGTGGATCAATGCAGCCGCCACAGAGGTGGTGAACATAT  
 TACGGTCCCTGGGTGTGATCTTCCGCTGAGCAACACCGTCTAGGGCTGACCCTCCTGGCCTGGGGAAA  
 CAGCATTGGAGATGCCTTCTCAGATTTACGCTGGCCCGCAAGGATACCCTCGGATGGCCTTCTCCGCC  
 TGTTTCGGGGGCATCATTTCAACATCCTGTTGGTGTGGGGCTGGGCTGCTTGTGCAGATCATCAGGA  
 ACCACGTTGTGGAGGTGAAGCTGGAGCCAGACGGATTACTGGTGTGGGTGCTGGCCAGTGCCTGGGCT  
 CAGCTTGATCTTCTCCCTGGTCTCCGTGCCGTTCAAGTGTTCAGCTCAGCAAGGCTTACGGCCTCTGC  
 CTCTCTCTTCTACATCTGTTTCTTGTGTGGTCTGCTCACAGATTTGGGGTGATTACCTGAAGA  
 AGGCGTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_133221
- Insert Size:** 1758 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\\_133221.2](#), [NP\\_573484.2](#)

**RefSeq Size:** 2893 bp

**RefSeq ORF:** 1758 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 (1) represents the longest transcript and encodes the longest isoform (1).