

Product datasheet for **RN205249**

Slc8b1 (NM_001017488) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc8b1 (NM_001017488) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Slc8b1
Synonyms:	Slc24a6
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN205249 representing NM_001017488
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGGCAGATGGCTGGATCCGCTCTGGGCGCCTGGCTTCCTCTGTGTGGCTCTGATACTGGAGACGG
 CATCTGGGGCCGGAGATCTATCCACAAAAGCACATGGACACATCCAGTTTTTCAGCCAGAGGTGTCAACCA
 GACTGCCATGGCAGACTGCCGAGCTGTGTGTAGCCTGAACACATCTGACCGCTGTGACTTTGTCAAGAGG
 AATCCCGACTGCCACAGCGAGGGGGGCTACCTGGACTACCTCAAGGGCATCTTCTGCTACTTCCCCCCCCA
 ACCTCCTCCCTCTGGCCATCACCTCTATGTTTTCTGGCTCCTTTACCTCTTTCTGATCCTCGGAGTCAC
 CGCAGCCAAGTTCTTCTGCCCTAATTGTGACCCATCTCCACCAGCCTCAAGCTCTCCACAACGTGGCA
 GGTGTACCTTCTGGCCTTTGGAAATGGCGCTCCAGACATTTTCAGTGTCTCGTGGCTTTCTCAGACC
 CTCGACTGCTGGCCTGGCCATTGGGGCTCTGTTTGGTGCAGGGGTGCTGGTCACTACTGTGGTGGCTGG
 TGGCATACCATCCTGCGTCCCTCATGGCTGCCTCCAGGCCCTCCTCAGGGACATCACTTTCTATATG
 GTGGCCGTGTTCCCTCACCTTACCAGCACTCTATCTCGGCAGGATCACACTGGTGTGGGCACTGGGTACC
 TGGGCCTCTATGTCTTCTATGTGGTACCGTCATCATCTGCACCTGGGTCTACCAAGGCAGCGGAGCAG
 GTCTTTGGTCCACTCCATATCAGAGACACCAGAGCTACTGACTGATTGAGAAGAGGATCAGATGTCTTCC
 AACACCAACAGCTATGACTATGGAGAGGAGTACCGGCCTCTGCTGCTGGGTGAGGAGACCACTGGGCAGA
 TCCTGCTCCAAGCCCTGAATCCCTTGGACTACAGGAAGTGGAGAAGTCAAGTCAAGTCAAGTCAAGTCAAG
 GAAAGTGGCCAAGTTGCCTGTGGAGTCTTGTGTGCTCACGGTACCGGTTGTGGACCCCGACAAGGAT
 GATCGGAACTGGAACCGCCACTCAACTGTCTGCAGCTGGTCAACAGCCCTGGTCTGGTCTGGTCTGACCC
 TGCATCGGGGGTCTATGGCATCTATGAGATCGGTGGCTCCTTCTGTGTGGGCTGTAGTGGTATCGT
 GGGCACAGCCCTGGCTTCAAGTACCTTCTTTGCCACATCTAACAGCGAACCCTTAGACTGCACTGGCTC
 TTTGCTTTCTGGGTTTCTGACCAGCGCCTGTGGATCAATGCAGCTGCCACGGAGGTGGTGAACATCT
 TGCGGTCCCTGGGCGTGGTCTTCCGCTCTGAGCAACACCGTCTAGGGCTGACCCTCTGGCCTGGGGGAA
 CAGCATTGGAGATGCGTTCTCAGATTTACGCTGGCCCGCCAGGGATACCCTCGGATGGCCTTCTCTGCC
 TGTTTTGGCGGCATCATTTCAATATCTGTTGGTGTGGGACTGGGCTGCTGTACAAATTGTCCGGA
 GCCATGCTCCGAGGTGAAGCTGGAACAGACGGACTGCTGGTGTGGGTGCTGGCCAGTGCCTGGGCT
 CAGCCTGGTCTTCTCCCTGGTCTCGGTTCCGCTCCAGTGTTCAGCTCAGCAAGGCCTACGGCCTCTGC
 CTCTCTCTTCTATATATGTTTCATTGTGGTGGTCTCCTCACGGAGTTCGGGGTGATTCACTTGAAGG
 CTGACTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001017488

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_001017488.1](#), [NP_001017488.1](#)

RefSeq Size: 2693 bp

RefSeq ORF: 1758 bp

Locus ID: 498185

UniProt ID: [Q6AXS0](#)

Cytogenetics: 12q16

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. 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 (By similarity). 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. 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 (By similarity). Able to transport Ca(2+) in exchange of either Li(+) or Na(+), explaining how Li(+) catalyzes Ca(2+) exchange. In contrast to other members of the family its function is independent of K(+) (By similarity).[UniProtKB/Swiss-Prot Function]