

## Product datasheet for **MG223948**

### **Slc8b1 (NM\_133221) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Slc8b1 (NM_133221) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slc8b1
Synonyms:	AF261233; NCKX6; NCLX; Slc24a6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG223948 representing NM\_133221  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAAGCAGATGGCTGGCTGCTCTGGGCTCCTGTCTTCTGTGTGGCTCTGATACTGGAGACGG  
 CGTCTGGGACCGGAGACCCATCCACAAAAGCCCATGGACACATCCAGTTTTTCAGCTGGAAGTGCAACCA  
 GACTGCCATGGCGGATTGCCGAGCCGTGTGTGGCTGAACACATCTGATCGCTGTGACTTTGTCAGGAGG  
 AATCCGGACTGCCGACGAGGCGGGCTACCTGGACTACCTTGAGGGCATCTTCTGCTACTTCCCCCCCCA  
 ACCTCCTCCCTCTGGCCATACCCTCTACGTTTTCTGGCTGCTTACCTCTTCTGATCTGGGAGTCAC  
 CGCGGCCAAGTTCTTCTGCCCTAACCTGTCAGCCATCTCCACTAACCTCAAACCTCCCACAACGTGGCA  
 GGTGTCACCTTCTGGCCTTTGAAATGGCGCTCCAGACATCTCAGTGTCTTAGTGGCTTTCTCAGACC  
 CACGACTGCCGGCTGGCCATCGGGCTCTGTTTGGTGCAGGGGTGCTGGTACCAGTGTGGTGGCTGG  
 AGGCATACCATCCTGCATCCCTTCATGGCTGCCTCCAGGCCCTCCTCAGGGACATCGCTTCTACATG  
 GTGGCTGTGTTCCAACTTCACTGCACCTATCTCGGCAGGATCACGCTGACGTGGGCGCTGGGTACC  
 TGGGCCTCTACGTGTTCTACGTGGTACGGTCATCATCTGCACCTGGGTCTACCAACGGCAGCGAAGCAG  
 GTCTCTGGTCCACTCCATATCGGAGACACCAGATTGCTGTCTGAGTCAAGGAGGACCAGATGTCTTCC  
 AACACCAACAGCTATGACTATGGAGATGAATACCGGCCTCTGTTGCTGGGTCGGGAGACCACTGTCCAGA  
 TCCTGATCCAAGCCCTGAATCCCTTGGACTACAGGAAGTGGAAGTCAAGTCAAGTCAAGTCAAGTCAAGT  
 GAAGGTAGTCAAGTTGCCTGTGGAGTCTTGTGTGCTCACAGTACCGGTTGTGGACCCCGACAAGGAC  
 GATCGGAATTGGAACGGCCACTCAACTGTCTGCAGCTGGTCAACAGCCCTGGTCTGGTCTGGTCTGACCC  
 TGCAGTCGGGGTCTATGGCATCTATGAGATCGCGGCTCCTTCTGTCTGGGCTGTGGTGTGATCGT  
 GGGCACAGCGCTGGCTTCAAGTACCTTCTTGGCACGTCTAACAGAGAACCCCTAGACTGCACTGGCTC  
 TTTGCTTCTGGGTTTCTGACCAGTGCCTGTGGATCAATGCAGCCGCCACAGAGGTGGTGAACATAT  
 TACGGTCCCTGGGTGTGATCTTCCGCTGAGCAACACCGTCTAGGGCTGACCCTCCTGGCCTGGGAAA  
 CAGCATTGGAGATGCCTTCTCAGATTTACGCTGGCCCGCAAGGATACCCTCGGATGGCCTTCTCCGCC  
 TGTTTCGGGGGCATCATCTTCAACATCCTGTTGGTGTGGGGCTGGGCTGCTGTCAGATCATCAGGA  
 ACCACGTTGTGGAGGTGAAGCTGGAGCCAGACGGATTACTGGTGTGGGTGCTGGCCAGTGCCTGGGCT  
 CAGCTTGATCTTCTCCCTGGTCTCCGTGCCGCTCAGTGTTCAGCTCAGCAAGGCTTACGGCCTCTGC  
 CTCTCTCTTCTACATCTGTTTCTTGTGTGGTCTGCTCACAGATTTGGGGTGATTACCTGAAGA  
 AGGCG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG223948 representing NM\_133221  
 Red=Cloning site Green=Tags(s)

MASRWLALLWAPVFLCVALILETASGTGDPSTKAHGHIQFSAGSVNQAMADCRAVCGLNSTRCDFVRR  
 NPDCRSEAGYLDYLEGIFCYFPPNLLPLAITLYVFWLLYFLILGVTAAKFFCPNLSAISTNKLKSHNVA  
 GVTFLAFNGAPDIFSAVAFSDPRTAGLAIGALFGAGVLVTTVVAGGITILHPFMAASRPFLRDI AFY  
 VAVFLTFTALYLGRITL TWALGYLGLYVYVVTVI ICTWVYQRQSRSLVHSISETPELLSESEEDQMSS  
 NTNSYDYGDEYRPLLLGRETTVQILIQALNPLDYRKWRTQSI SWRVLKVVKL PVEFLLLL T V P V V D P D K  
 DRNWKRP LNCLQLVISPLV L V L T Q S G V Y G I E I G L L P V W A V V V I V G T A L A S V T F F A T S N R E P P R L H W L  
 F A F L G F L T S A L W I N A A A T E V V N I L R S L G V I F R L S N T V L G L T L L A W G N S I G D A F S D F T L A R Q G Y P R M A F S A  
 C F G G I I F N I L V G V L G C L L Q I I R N H V V E V K L E P D G L L V W V L A S A L G L S L I F S L V S V P L Q C F Q L S K A Y G L C  
 L L L F Y I C F L V V V L L T E F G V I H L K K A

**TRTRPLE** – GFP Tag – V

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja1179\\_g02.zip](https://cdn.origene.com/chromatograms/ja1179_g02.zip)

**Restriction Sites:**

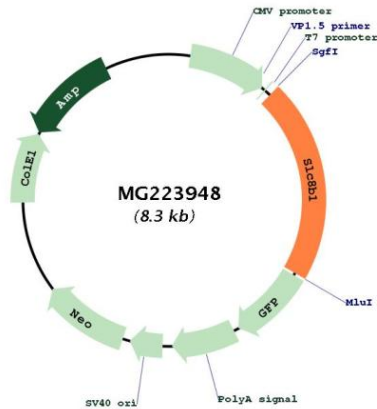
Sgfl-Mlul



**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]

**Product images:**



Circular map for MG223948