

## Product datasheet for **MG208700**

### Slc9b2 (NM\_178877) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Slc9b2 (NM_178877) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slc9b2
Synonyms:	C80638; nha-oc; NHA2; nhaoc; NHE10; Nhedc2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208700 representing NM\_178877  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGGATGAAGATAAGACAGCTGAATGTCAGCATTCAAAGCCACCTACGGGGATCACACACGAGGCTC  
 CTCACATCACGAACTACAGGAAGAGAGTTCATGAGCCTCAGAGGTACAGACAGAAGTGAACCGACAGA  
 AGGCAGTAACCTGCTGACCAGCGGTGAAAAAAGCCACAGGACTACCAACAGAACCCTAATGGCCTGCAG  
 AGTCTGAGGCGATTCTGGCCTGCCCTCCACGAGGCTGCCTGGCAAGAGTGATAACGAACGGTACCATGG  
 TTGTTCTTCTGTGGGCCATGTTTGGTCAGTTACCGGCCCTGAATGTCTTCTGGAGGAAATCTGTTTGG  
 AATTATCATTCTGTTCTATTGTTCCATCACCGGAGGTAACCTTTTTGGACTCATTAAAGTTTCCAACATTG  
 CCTCTCTGCCTCTTCTTGGCATGCTGCTAGCTGGGTTTCTTGGAGGAATATCCAGTCATCAATG  
 ATAGCGTCCGGATCCAACACAAGTGGTCGTCATCTTTGAGAAGCATAGCCCTTTCTGTCATTCTGGTTCCG  
 TGCTGGCCTTGGTCTAGATTCAAAGGCCCTGAGGAAGCTGAAGGGTGTGTGTGTGCGACTGGCCATGGGT  
 CCCTGCATCGTGGAGCGTGTGCTTCTGCGATTCTCTCACTTCTGATGGGGTTGCCATGGCAATGGG  
 GGTTATCCTGGGTTTTGTCGTAGGTGCCGTGTCCCCAGCTGTCGTGGTGCCTCCATGCTCCTTTTGCA  
 GGAAGGAGGCTACGGTGTGGAAAAGGTATCCCAACCTTACTCATGGCCCGCCGAGCTTCGATGACATC  
 CTGGCCATCACTGGCTTCAACACGTGCTTAGGCGTGGCCTTTCCACAGGATCTACAGTTTTTAAACATCT  
 TCAGAGGCATCTGGAGGTGGTAATTGGTGTGGCAGCTGGATCTTTTCTGGGTTTTTATCCAGTACTT  
 CCCGAGCAGGGACCAGGACAACCTCGTGTGGAAGCGAGCCTTTCTGGTCTGGGTTTTGCTGTGCTCGT  
 GTGTTACGAGTGTGATTTTAGCTTCCCGGGTCTGGAGGACTGACAGTTGGTATGGCTTTTCCCA  
 CAGGCATGAGGTGGACTGACAAGAAGTCAAGAGGTAGAAAAGGTCATTGCAGTTACCTGGGCTTTTCCA  
 GCCTCTTCTTTTGGCCTGATTGGAGCAGAGGTTTCCATTGTGTCTCTCAGAGCAGAAACGGTTGGCCTT  
 TGTGTTGCAACCCTCAGCATCGCAGTGCTTATACGAATTCTGACTACATTCTGATGGTGTGTTTCGCTG  
 GCTTTAACATAAAGGAAAAGATATTTATTTCTTTTGCCTGGCTTCCAAAGGCCACGGTCCAGGCTGCCAT  
 TGGCTCTGTGGCTCTGGACACGGCAAGATCCCACGGAGAGAAGCAGCTGGAAGACTATGGGATGGATGTG  
 CTGACGGTGGCATTTTTGGCCATCCTCATTACAGCACCAATTGGAAGCCTACTGATTGGTTTGTGGGTC  
 CCAGGGTTCTTCAAAAATCTGAACATCGAACCGAAGAGGAGGTTCAAGGAGAGACTTCTGCACACATTCA  
 GAGGAAGCCTGAGGATTCCATTACGGAAGCC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG208700 representing NM\_178877  
 Red=Cloning site Green=Tags(s)

MEDEDKTAECQHSKPPTGITHEAPPHHELQEERVMSLRGTRDREPTSESNLLTSGEKKPQDSPTPEPGLQ  
 SLRRFLACPPRGCLARVITNGTMVLLWAMVWSVTGPECLPGGNLFGIILFYCSITGGKLFGLIKFPTL  
 PPLPPLLGMLLAGFLLRNIPVINDSVRIQHKWSSSLRSIALSVILVRAGLGLDSKALRKLKGVCVRLAMG  
 PCIVEACASAILSHFLMGLPWQWGFILGFVVGAVSPAVVPSMLLLQEGGYGVGKGIPTLLMAAGSFDDI  
 LAITGFNTCLGVAFSTGTVFNIFRGILEVVIGVAAGSFLGFFIQYFPSRDQDNLVWKRAFLVLFVAVLA  
 VFSSVYFSFPGSGGLCTLVMAFLAGMRWTDKKSEVEKVIAVTWDVFQPLLFGLIGAESIVSLRAETVGL  
 CVATLSIAVLIIRILTTFLMVCFAFNIKEKIFISFAWLPKATVQAAIGSVALDARSHGEKQLEDYGMDV  
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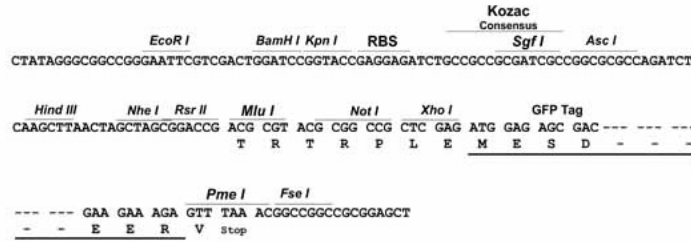
**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

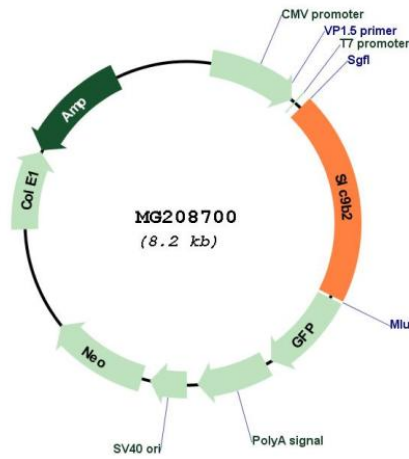
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	NM_178877
<b>ORF Size:</b>	1641 bp
<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_178877.6</a> , <a href="#">NP_849208.4</a>
<b>RefSeq Size:</b>	2243 bp
<b>RefSeq ORF:</b>	1644 bp
<b>Locus ID:</b>	97086
<b>UniProt ID:</b>	<a href="#">Q5BKR2</a>
<b>Cytogenetics:</b>	3 G3
<b>Gene Summary:</b>	Na(+)/H(+) antiporter that extrudes Na(+) or Li(+) in exchange for external protons across the membrane (PubMed:18508966, PubMed:17988971). Contributes to the regulation of intracellular pH, sodium homeostasis, and cell volume. Plays an important role for insulin secretion and clathrin-mediated endocytosis in beta-cells (PubMed:23720317). Involved in sperm motility and fertility (PubMed:27010853). It is controversial whether SLC9B2 plays a role in osteoclast differentiation (PubMed:17988971) or not (PubMed:20441802, PubMed:22985540).[UniProtKB/Swiss-Prot Function]