

Product datasheet for **RR208988**

Slc8a2 (NM_078619) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc8a2 (NM_078619) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Slc8a2
Synonyms:	Ncx2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide
Sequence:

>RR208988 representing NM_078619
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCCCTTGGCTTTGGTAGGGTTGCCCTCTTCTGGGGACACCCACTGCTGGGGGAAGCTACTC
CGACCCATCCCTGCCACCTCCCCAGCTAATGACAGCGATGCCAGCCAGGCGGCTGCCAAGGTTCTTA
CCGCTGCCAACCAAGGGTGTCTGCTGCTGTGTGGGAACCCGACGACCCATCACTGGGGGACAAGGCTGCA
CGGGCCGTGGTGTACTTTGTGGCCATGGTCTACATGTTCTTGGGTCTGTCTATCATTGCTGATCGTTTTA
TGGCATCCATTGAGGTCAACATCCAAGGAGAAAGAGATCACCATCACCAAGGCAAATGGGAGACCAG
CGTGGGCACTGTACGCATCTGGAATGAAACGGTGTCCAACCTTACTCATGGCCCTGGGCTCCTCAGCA
CCTGAGATTCTGCTGTCTGTATCGAGGTCTGTGGCCACAACCTCCAGGCGGGTGTAGCTAGGCCAGGCA
CCATCGTGGGCAGTGCCGCTTCAACATGTTTGTGGTCAATTGCTGTGTGTGTATGTCATCCCGCTGG
TGAGAGCCGTAAGATCAAGCACTTAAGGGTCTTCTTCGTCACAGCCTCTTGGAGCATCTTGGCTATGTC
TGGCTTTATCTCATTCTAGCAGTTTTCTCTCCAGGCGTGGTCCAGGTGTGGGAGGCACTGCTCACGCTGG
TCTTCTCCCGGTGTGTGTGGTGTTCGCTGGATGGCGGACAAGCGACTGCTCTTCTACAAGTACGTGTA
CAAGCGTATCGCACCGACCCTCGCAGCGGAATCATCATCGGGGACAGGGGAGACCCGCCAAGAGCATC
GAGCTGGATGGACATTCGTGGGCACTGAGGTCCCAGGCGAGCTGGGTGCATTGGGCACAGGTCCCGCTG
AGGCGCGTGAGCTGGACGCCAGCCGGCGGAGGTATCCAGATTCTTAAGGACTTAAAGCAGAAGCACCC
GGATAAGGACCTGGAGCAGCTGGTGGGCATCGCAAGTACTATGCACTGCTGCACCAGCAGAAGAGCCGT
GCCTTCTACCGCATCCAGGCCACGCGGTGATGACAGGTGCGGGCAACGTGCTGCGCCGACACGCTGCCG
ATGCTGCCCGCAGGCTGGGGCAACGATGGTCCCGCATGATGAGGACGATGGTGGCCAGCCGCTCTT
CTTTGAGCCAGCCTCTACCCTGCTGGAGAAGTGGGGTCACTGCTGCTGTGCGGTGGCTTGGCAGGGT
GGTGGAGGCAACAGCACCTTCTACGTGGATTACCGCACGAGGATGGCTCTGCAAGGCAGGCTCCGATT
ATGAGTACAGCGAGGGCACGCTGGTGTCAAGCCGGGAGACGACAGAGGAGCTGCGCATCGGCATCAT
CGACGACGACATCTTCGAGGAGGACGAGCACTTCTTCGTGAGGCTGCTGAACCTGCGTGTGGCGATGCT
CAGGGCATGTTTCGAGCCGACGGCGGTGGGCGGCCAAGGGGCGGCTGGTGGCGCACTGCTGGCCACCG
TCACCATCTGGACGACGACCACGCGGCATCTTCTCTCCAGGACCGCTGCTGCATGTGAGCGAGTG
CATGGGACCGTGGATGTGCGTGTGGTGCAGCTCTGGCGCACGTGGCACCGTACGCCCTCCCTACCGC
ACAGTGGACGGCACGGCTCGTGGTGGTGTGCACTACGAGGATGCTTGTGGAGAGCTGGAGTTCGGCG
ATGACGAGACCATGAAGACTCTTCAGGTCAAGATAGTGGACGACGAAGAGTATGAGAAGAAGGACAACCT
CTTCATCGAGCTGGGCCAGCCCCAGTGGCTTAAGCGGGGCATCTCAGCTCTGCTACTCAACCAAGGGGAT
GGAGACAGGAAGCTGACTGCAGAGGAGGAGGAGGCCAGAGGATAGCAGAGATGGGCAAGCCAGTCTTGG
GGGAGAAGTGTGCGCTCGAGGTATCATCGAGGAGTCTTATGACTTTAAGAATACGGTGGATAAACTCAT
AAAGAAAACAACTGGCCTTGGTATTGGGACCCACTCATGGAGGGAGCAGTTTTTAGAGGCAGTTACA
GTGAGCGCAGGGGACGAGGAGGAGGATGAGGATGGGTCTCGTGGAGGCGGCTGCCATCCTGCTTGGACT
ACGTGATGCACTTCTGACGGTGTCTGAAAGTCTGTTTCGCTGCCTCCACCCACGGAGTACTGCCA
TGGCTGGGCTGCTTTGGTGTCTGCATCCTGGTCAATGGTCTGCTCACTGCCCTCATCGGAGACCTGGCC
TCACACTTTGGGTGCACCGTGGGCTCAAGGACTCAGTCAACGCGGTGGTCTTCGTGGCTCTGGGCACCT
CCATCCCTGACACGTTTGCAGCAAGGTGGCCGCGCTGCAGGACCAAGTGCAGGACCGTCCATCGGTAA
CGTGACCGGCTCCAATGCGGTGAACGTGTTCTGGGCTGGGTGTGGCCTGGTGGTGGCCGAGTGTAC
TGGGCGGTGCAGGTCGCCCCTTCGAGGTGCGTACAGGACGCTGGCCTTCTCGTACACTGTTACCGG
TCTTCGCTTCTGGGCATCGCAGTCTTGTACCGGCGCCGGCCACACATCGGCGGCGAGCTGGGCGG
CCGCGGGGACCAAGCTAGCCACCACCGCTCTTCTGGGCTCTGGTTCCTTACATTCTCTTCGCC
AGCCTGGAGGCTTATTGCCACATTCGGGGCTTC

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR208988 representing NM_078619
 Red=Cloning site Green=Tags(s)

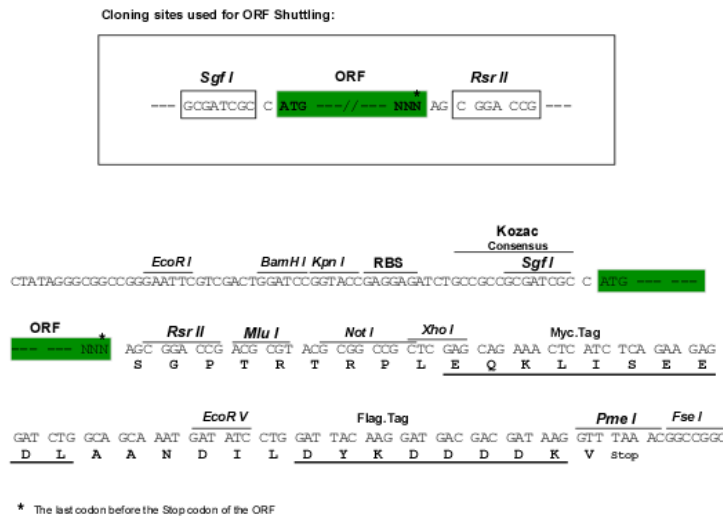
MAPLALVGVALLLGAPHCLGEATPTPSLPPPPANDSDASPGGCQGSYRCQPGVLLPVWEPDDPSLGDKAA
 RAVVYFVAMVYMFGLGLSIADRFMASIEVITSKEKEITITKANGETSVGTVRIWNETVSNLTMALGSSA
 PEILLSVIEVCGHNFQAGELGPGTIVGSAAFNMFVVIACVYVIPAGESRRIKHLRVFFVTASWSIFAYY
 WLYLILAVFSPGVVQVWEALLTLVFFPVCVVFAWMADKRLLFYKYVYKRYRTDPRSGIIIGAEGDPPKSI
 ELDGTFVGTVEVPGELGALGTGPAEARELDASRREVIQILKDLKQKHPDKLEQLVGIKYYALLHQQKSR
 AFYRIQATRLMTGAGNVLRRHAADAARRPGANDGAPDDEDDGASRIFFEPSLYHCLENCVSVLLSVACQG
 GEGNSTFYVDYRTEDGSAKAGSDYEYSEGTLVFKPGETQKELRIGIIDDDIFEDEHFFVRLNLRVGD
 QGMFEPDGGGRPKGRLVAPLLATVTILDDDHAGIFSFQDRLLHVSECMGTVDVVRVSSGARGTVRLPYR
 TVDGTARGGGVHYEDACGELEFGDDETMKTLQVKIVDDEEYKKNDF IELGQPQLKRGISALLLNQGD
 GDRKLTAEAAAAQRIEMGKPVLGENCRLVIEESYDFKNTVDKLIKTNLALVIGTHSWREQFLEAVT
 VSAGDEEDEDGSRERLPSCFDYVMHFLTVFWKVLFACLPPTYCHGWACFGVCILVIGLLTALIGDLA
 SHFGCTVGLKDSYNAVVFVALGTSIPDTFASKVAALQDQCADASIGNVTGSNAVNVFLGLGVAWSVAAY
 WAVQGRPFVVRTGLAFSVTLFTVFAFVGIIVLLYRRRPHIGGELGGPRGPKLATTALFLGLWFLYILFA
 SLEAYCHIRGF

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

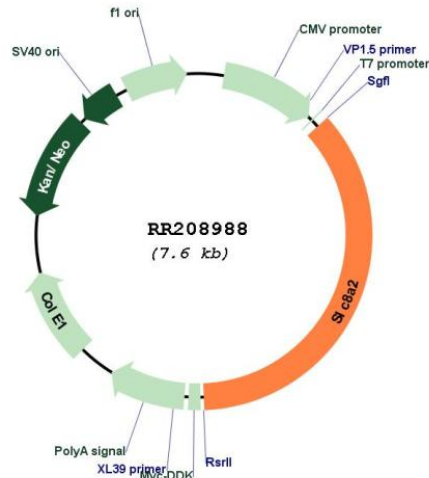
Restriction Sites:

SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: NM_078619

ORF Size: 2763 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<u>NM_078619.1, NP_511174.1</u>
RefSeq Size:	3004 bp
RefSeq ORF:	2766 bp
Locus ID:	140447
UniProt ID:	<u>P48768</u>
Cytogenetics:	1q21
MW:	100.5 kDa
Gene Summary:	isoform 2 of sodium/calcium exchanger; regulates intracellular calcium levels and maintains calcium homeostasis; may be important for the control of synaptic plasticity [RGD, Feb 2006]