

Product datasheet for **RR217462**

Slc12a7 (NM_001013144) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Slc12a7 (NM_001013144) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Slc12a7
Synonyms: Kcc4
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR217462 representing NM_001013144
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCACGAACTTTACGGTGGTCCGGTGGAGGCGCGCCGACGGCGCCGGGACGAAGCTGCTGAGC
GCACGGAAGAACCCGGTCTCCCGAGAGCGCGGATCCTGCCTGCCCTACGCCGGGAGATGGAACCCCGAG
GGAGAACAGCCCATTCATCAATAATGTGGAGGTGAAAGAGAGAGCTACTTCGAGGGGAAGAACATGGCG
CTTTTTGAGGAAGAGATGGACAGCAACCCCATGGTATCATCACTGCTGAACAAGCTGGCCAACTATACCA
ACCTGAGCCAGGGTGTGGTAGAGCATGAGGAAGATGAGGACAGCCGGAGGCGGGAGATCAAGGCCACCG
CATGGGCACCTTCATCGGAGTCTACCTACCGTGCCTGCAGAACATCTTGGGTGTAATCCTTTTCTGCGC
CTGACCTGGATTGTGGGGCGGCTGGCCTTCTGGAGTCTTCTCATCGTGGCCATGTGCTGCACCTGTA
CAATGCTGACAGCCATCTCCATGAGTGCATCGCTACCAACGGTGTGGTCCCAGCGGGAGGCTCATACTA
CATGATCTCCCGTTTCGCTGGGGCCTGAGTTTGGAGGGGCTGTTGGCCTGCTTCTACTTGGGCACAACG
TTCGAGGCCCCATGTACATCTGGGAACCATCGAGATCTTCTGACCTACATCTCTCCAAGTGCAGCCA
TCTTCCAGGACAGACAGCAGACGCGGAGCGCGCCGCTGTAACAACATGCGTGTGTATGGCAGCTG
CGCACTGGCGCTCATGGCCGTGGTGGTCTTCGTCGGAGTCAAATATGTCAACAAGCTGGCCCTGGTCTTC
TTAGCCTGTGTTGTGCTTCTATCCTGGCCATCTATGCTGGTGTGTCATCAAGACAGCCTTCGCCCCACCTG
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GGTTGTCAGCAATGGCACAGTACCACCGCCTCTGGCGCCTTCTGCAACGGCTCCAGCTTGGGTGCC
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TCTTCTGGATAACCTGTGGAGCACGTATTCGGACAAGGGGGCATTGTGGAAAAGAAGGGCGTGCCTC
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CAAGGGAACTTGGTCATTGGCATGCTGGCTTGGCCATCTCCCTGGGTATCGTGATTGGCTCCTTCTTCT



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CCACCTGTGGTGCCTGGCCTGCAGAGCCTAACTGGGGCACCCCGCCTGCTGCAGGCCATTGCACGCGACGG
 CATCATCCCCTTCTGCAGGTGTTTGGCCATGGAAGGCCAACGGGGAGCCCACGTGGGCCCTGCTGCTC
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 GTGCCGGGAAGTCATCACCATCTACTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR217462 representing NM_001013144

Red=Cloning site Green=Tags(s)

MPTNFTVVPVEARADGAGDEAAERTEEPGSPESADPACPTPGDGNPRENSPFINNVEVERESYFEGKNMA
 LFEEEMDSNPMVSSLLNKLANYTNLSQGVVEHEEDEDSSRRREIKAPRMGTFIGVYLPCLQNILGVILFLR
 LTVIVGAAGVLESFLIVAMCCTCTMLTAISMSAIATNGVVPAGGSYYMISRSLGPEFFGGAVGLCFYLGTT
 FAGAMYILGTIEIFLTYISPSAIFQAETADGEEAALLNMRVYGSCALALMAVVVFGVKYVVKLALVF
 LACVVLILAIYAGVIKTAFAAPPDIPVCLLGNRTLNRNFDTCAKMQVVSNGTVTALWRLFENGSLLGA
 SCDEYFVQNNVTEIQGIPGVASGVFLDNLWSTYSKGFVEKKGVSVPVSEESRPGGLPYVLTDMTYF
 TMLVGIYFPSVTGIMAGSNRSGDLKDAQSIPTGTILAIVTTSFYLSIIVLFGACIEGVLRDKFGEAL
 QGNLVIIGMLAWPSPWVIVIGSFFSTCGAGLQSLTGAPRLLQAIARDGIIPFLQVFGHGKANGIPTWALLL
 TALICETGILIASLDSVAPILSMFFLMCYMFVNLACAVQTLRLTPNWRPRFKFYHWLTSFLGMSLCLALM
 FICSWYYALFAML IAGCIYKYIEYRGAKEWGDGIRGLSLNAARYALLRVEHGPHTKNWRPQVLVMLNL
 DSEQCVKHPRLLSFTSQLKAGKGLTIVGSVLEGTYLDKHVEAQRAEENIRSLMSAEKMGFCQLVSSNL
 RDGASHLIQSAGLGGMKHNTVLMWPEAWKQADNPF SWKNFVDTVRDTTAAHQALLVAKNIDLFPQNQER
 FSDGNIDVWVIVHDGMLMLLPFLLRQHKVWRKCRMRIFTVAQVDDNSIQMKDLQMFYLHLRISAEVEV
 VEMVENDISAFTEKTLMMEQRSQMLKQMLSKNEREREAQLIHDRNTASHTVATARTEAPTPDKVQMT
 WTKEKLI AEKHRNKDTGTSGFKDLFSLKPDQSNVRRMHTAVKLNGLVVLNKSQDAQLVLLNMPGPPKSRQG
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

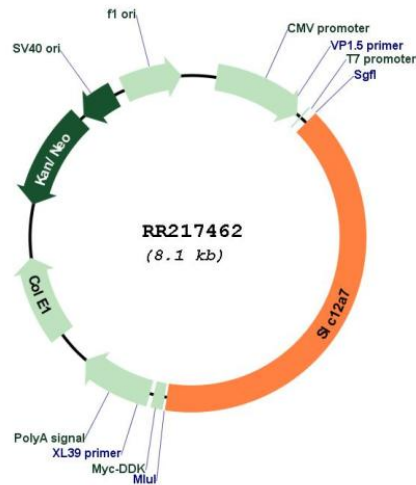
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001013144

ORF Size: 3249 bp

OTI Disclaimer: 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:	<ol style="list-style-type: none">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_001013144.2, NP_001013162.2</u>
RefSeq Size:	5003 bp
RefSeq ORF:	3252 bp
Locus ID:	308069
UniProt ID:	<u>Q5RK27</u>
Cytogenetics:	1p11
MW:	119.4 kDa
Gene Summary:	Mediates electroneutral potassium-chloride cotransport when activated by cell swelling. May mediate K(+) uptake into Deiters' cells in the cochlea and contribute to K(+) recycling in the inner ear. Important for the survival of cochlear outer and inner hair cells and the maintenance of the organ of Corti. May be required for basolateral Cl(-) extrusion in the kidney and contribute to renal acidification (By similarity).[UniProtKB/Swiss-Prot Function]