

Product datasheet for MR231613

Slc4a10 (NM_001242382) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Slc4a10 (NM_001242382) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Slc4a10
Synonyms: mKIAA4136; NCBE
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR231613 representing NM_001242382
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGATTAAGACCAGGGAGCCCAAATGGAGCCGCTGCTGCCTACGAGAAATGATGAAGAAGCCGTTG
TGGATAGAGGTGGAACACGCTCTATTCTCAAACACATTTTGAGAAAGAAGATTTAGAAGGTCATCGGAC
ATTATTTATTGGAGTTCATGTGCCCTGGGTGGAAGAAAAGCCATCGTCGTCACAGGCATCGTGGTCAT
AAGCACAGAAAGAGGGACAGAGAGAGAGATTCCGGACTGGAGGATGGAAGAGAGTCCCCTCTTTTGACA
CCCCATCGCAGAGGGTGCAGTTTATTCTTGAAGTGAAGGACGATGATGAGGAGCACCTCCCTCATGACCT
TTTCACAGAGCTGGATGAGATTTGCTGGCGTGAAGGGGAAGATGCTGAGTGGCGAGAGACAGCCAGGTGG
TTGAAATTTGAAGAGGATGTGGAAGATGGAGGAGAAAGATGGAGTAAGCCCTATGTGGCCACGCTTTCAT
TACACAGCTTGTGGAGTTGAGAAGCTGCATCCTGAATGGAAGTGTGCTACTGGACATGCATGCCAACAC
GATAGAAGAAATTCAGATATGGTCCTTGACCAGCAGGTCAGCTCAGGCCAGCTGAATGAAGATGTTCCG
CACAGGGTCCACGAAGCATTGATGAAGCAGCATCATCACCAGAATCAGAAAAAATGGCTAACAGGATTC
CTATTGTCCGATCTTTGCTGATATTGGCAAGAAACAATCAGAACCAAATTCATGGATAAAAAATGGTCA
GGTTGTTTCTCCTCAGTCTGCTCCAGCCTGTGCTGAGAATAAAAAATGATGTCAGCAGGGAAAACAGCACT
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TGCTGAAGCTTCAAACATCTTGGTAGGAGAAGTGGAGTTCCTAGACAGAAGTGGTTGCCTTTGTCAGG
TTGTCTCCAGCTGTCTTCTCAAGGACTTGTGAAGTCCAATCCCAAGCAGATTTCTGTTTCATCTTC
TGGGACCCCTGGAAAGGGTCAACAGTACCACGAGATTGGCAGATCGATTGCGACCTTAATGACTGATGA
GGTGTTCATGATGTTGCTTACAAAGCTAAAGACCGCAATGACTTGGTATCAGGAATTGATGAGTTTCTG
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CTTCCCAGGAGAAGGAAGATTCTGTGTACCAAAATGGAACAGCAGCTCATGGCGAAGCTGAGCCACA
TGGAGGACACAGCGGACCTGAACTCCAGCGAACTGGGAGGATTTTGGGGGACTTATATTAGATATCAAA
AGAAAGGCTCCATTCTTCTGGAGTGACTTCAGGGATGCTTTCAGCCTGCAGTGCTTAGCATCGTTCTCTGT



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TTCTCTACTGTGCATGCATGTCTCCTGTGCATCACATTTGGAGGACTGTTGGGAGAAGCAACTGAAGGTCCG
TATAAGTGCAATCGAATCACTCTTTGGAGCATCTATGACCGGGATAGCCTATTCTCTTTTTGGTGGACAG
CCCCTGACCATATTAGGCAGCACAGGACCTGTTTTGGTGTGTTGAAAAGATCTTGTTAAGTTTTGAAGG
AATACGGCCTGTCGTAATGTCTTACGGGCCAGCATTGGGCTCTGGACTGCAACACTGTGCATCATCT
TGTGGCCACGGACGCGAGCTCACTCGTCTGCTACATCACCCGGTTTACCGAAGAGGCTTTTGCTTCTCTC
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CAAGCTCGAATCAGAGTGCTCTGCTCCAGGAGAACAACCAAGTTTCTCGGCATTCCGGGAGCAGAGGGTG
ACCGGGCTCATGATTTTTATTCTTATGGGTTTCCGTTTTTATGACCAGCATTCTGAAGTTTATCCCCA
TGCCAGTGTTATACGGAGTGTCTTTATATGGGTGCTTCGTCTCTCAAAGGAATTCAGTTATTTGATAG
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AAAGTCCATCTTTCACAGTCATTCAGATGAGTTGTCTCGGCCTTCTGTGGATAATCAAAGTTTCGAGAG
CTGCTATTGTCTTCTATGATGGTGTGGCACTAGTGTGTTGTGAGAAAGTTGATGGACTCTTGTGTTTAC
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR231613 representing NM_001242382
Red=Cloning site Green=Tags(s)

MEIKDQGAQMEPLLPTRNDEEAVVDRGGTRSILKTHFEKEDLEGHRTLFIGVHVPLGGRKSHRRHRHRGH
KHKRDRERDREDSLEGGRESFDTSPQRVQFILGTEDDDEEHLPHDLFTELDEICWREGEDAEWRETARW
LKFEEVDVGGERWSKPYVATLSLHSLFELRSCILNGTVLLDMHANTIEEIAMVLDQQVSSGQLNEDVR
HRVHEALMKQHQQKLANRIPVRSFADIGKKQSEPNMSMDKNGQVSPQSAPACAENKNDVSRENST
VDFSKGLGGQKQHTSPCGMKQRLDKGPPHQEREVDLHFMKKIPPGAEASNILVGELEFLDRTVAVFVR
LSPAVLLQGLAEVPIPSRFLFILLGPLGKGQYHEIGRSIATLMTDEVFHDVAYKAKDRNDLVSGIDFL
DQVTVLPPGEWDPISIRIEPPKNVPSQEKRKIPAVPNGTAAHGEAEPHGGHSGPELQRTGRIFGGLILDIK
RKAPFFWSDFRDAFSLQCLASFLFLYCACMSPVITFGGLLGEATEGRISAIESLFGASMTGIAYSLFGGQ
PLTILGSTGPVLVFEKILFKFCKEYGLSYLSLRASIGLWTATLCIILVATDASSLVCIYTRFTEEFASL
ICIFIYIYEALEKLFELSETYPINMHNDLELLTQYSCNCEPHSPSNDTLKEWRESNLSASDIWGNLTVS
ECRSLHGEYVGRACGHGHPYVPDVLFWSVILFFSTVMSATLKQFKTSRYFPTKVRISVSDFAVFLTILC
MVLIDYAIIGIPSPKLQVPSVFKPTRDDRGWFVTPLGPNPWWTIIAAIIPALLCTILIFMDQQITAVIINR
KEHKLKCGCYHLDLLMVAVMLGVCSIMGLPWFVAATVLSITHVNSLKLSECSAPGEQPKFLGIREQV
TGLMIFILMGSSVFMTSLKFIKIPVLYGVFLYMGASSLKGILQFLDRIKLFWMPAKHQPDFIYLRHVPLR
KVHLFTVIQMSCLGLLWIKVSRRAIVFPMMLALVFVRKLMDFLFTKRELSWLDLMPESKKKKLEDAE
KEEEQSMLEDEGTQVLPLEGHYRDDPSVINISDEMSKTAMWGNLLVTADNSKEKESRFPSKSNESRKE
KKADSGKGVDRCTL

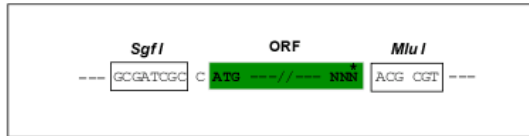
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

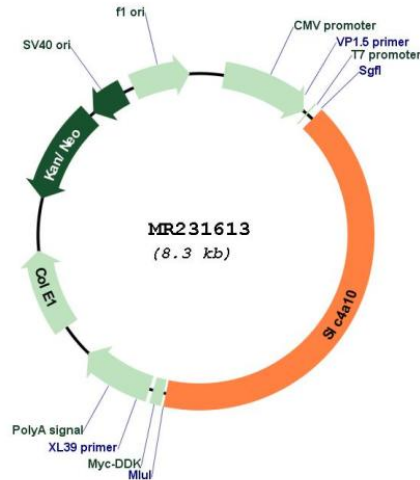
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001242382

ORF Size: 3405 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:

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_001242382.1](#), [NP_001229311.1](#)

RefSeq Size: 5511 bp

RefSeq ORF: 3408 bp

Locus ID: 94229

Cytogenetics: 2 C1.3

MW: 128.3 kDa

Gene Summary:

Sodium/bicarbonate cotransporter which plays an important role in regulating intracellular pH (PubMed:10993873, PubMed:20566632). Has been shown to act as a sodium/bicarbonate cotransporter in exchange for intracellular chloride (PubMed:10993873, PubMed:20566632). Has also been shown to act as a sodium/bicarbonate cotransporter which is not responsible for net efflux of chloride, with the observed chloride efflux being due to chloride self-exchange (By similarity). Controls neuronal pH and may contribute to the secretion of cerebrospinal fluid (PubMed:18165320). Reduces the excitability of CA1 pyramidal neurons and modulates short-term synaptic plasticity (PubMed:26136660). Required in retinal cells to maintain normal pH which is necessary for normal vision (PubMed:23056253). In the kidney, likely to mediate bicarbonate reclamation in the apical membrane of the proximal tubules (By similarity).[UniProtKB/Swiss-Prot Function]