

Product datasheet for MR231615

Slc4a10 (NM_001242378) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Slc4a10 (NM_001242378) 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: >MR231615 representing NM_001242378
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGGATCGCC

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TGGATAGAGGTGGAACACGCTCTATTCTCAAACACATTTTGAGAAAGAAGATTTAGAAGTCATCGGAC
ATTATTTATTGGAGTTCATGTGCCCTGGGTGGAAGAAAAGCCATCGTCGTACAGGCATCGTGGTCAT
AAGCACAGAAAGAGGGACAGAGAGAGAGATTCCGGACTGGAGGATGGAAGAGAGTCCCCTCTTTTGACA
CCCCATCGCAGAGGGTGCAGTTTATTCTTGAAGTGAAGGACGATGATGAGGAGCACCTCCCTCATGACCT
TTTCACAGAGCTGGATGAGATTTGCTGGCGTGAAGGGGAAGATGCTGAGTGGCGAGAGACAGCCAGGTGG
TTGAAATTTGAAGAGGATGTGGAAGATGGAGGAGAAAGATGGAGTAAGCCCTATGTGGCCACGCTTTCAT
TACACAGCTTGTTTGAGTTGAGAAGCTGCATCCTGAATGGAAGTGTGCTACTGGACATGCATGCCAACAC
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CACAGGGTCCACGAAGCATTGATGAAGCAGCATCATCACCAGAATCAGAAAAAATGGCTAACAGGATTC
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TCAGGTTGTTTCTCCTCAGTCTGCTCCAGCCTGTGCTGAGAATAAAAAATGATGTCAGCAGGGAAAAACAGC
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AGGTTGTCTCCAGCTGTCTTCTCAAGGACTTGCTGAAGTTCCAATCCAAGCAGATTTCTGTTTCATCC
TTCTGGGACCCCTGGGAAAGGTCAACAGTACCACGAGATTGGCAGATCGATTGCGACCTTAATGACTGA
TGAGGTGTTTCATGATGTTGCTTACAAAGCTAAAGACCGCAATGACTTGGTATCAGGAATTGATGAGTTT
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ACATGGAGGACACAGCGGACCTGAACTCCAGCGAACTGGGAGGATTTTGGGGGACTTATATTAGATATC
AAAAGAAAGGCTCCATTCTTCTGGAGTGACTTCAGGGATGCTTTCAGCCTGCAGTCTTAGCATCGTTCC



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TGTTTCTCTACTGTGCATGCATGTCTCCTGTCATCACATTTGGAGGACTGTTGGGAGAAGCAACTGAAGG
 TCGTATAAGTGAATCGAATCACTCTTTGGAGCATCTATGACCGGGATAGCCTATTCTCTTTTTGGTGG
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR231615 representing NM_001242378
 Red=Cloning site Green=Tags(s)

MEIKDQGAQMEPLLPTRNDEEAVVDRGGTRSILKTHFEKEDLEGHRTLFIVGHVPLGGRKSHRRHRHRGH
 KHRKRDRERDSGLEDRSPSFDTPSQRVQFILGTEDDDEEHLPHDLFTELDEICWREGEDAEWRETARW
 LKFEEDVEDGGERWSKPYVATLSLHSLFELRSCILNGTVLLDMHANTIEEIAMVLDQQVSSGQLNEDVR
 HRVHEALMKQHQQKLANRIPVRSFADIGKKQSEPNMSMDKNAGQVSPQSAPACAENKNDVSRNS
 TVDFSKLGGQKQHTSPCGMKQRLDKGPPHQEREVDLHFMKKIPPGAEASNILVGELEFLDRTVAVFV
 RLSPAVLLQGLAEVPIPSRFLILLGPLGKQYHEIGRSIATLMTDEVFHDVAYKAKDRNDLVSGIDEF
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 KRKAPFFWSDFRDAFSLQCLASFLFLYCACMSPVITFGGLLGEATEGRISAIESLFGASMTGIAYSLFGG
 QPLTILGSTGPVLFKELFKFCKEYGLSYLSRASIGLWTATLCIILVATDASSLVCIYTRFTEEFAS
 LICIIIFIYEALFKLFESETYPINMHNDLELLTQYSCNCEPHSPSNDTLKEWRESNLSASDIWGNLTV
 SECRSLHGEYVGRACGHGHPYVPDVLFWVILFFSTVTMSATLKQFKTSRYFPTKVRISIVSDFAVFLTIL
 CMVLDIYAIIGIPSPKLQVPSVFKPTRDDRGWVFTPLGPNPWWTIIAAIIPALLCTILIFMDQQITAVIIN
 RKEHKLKKGCGYHLDLLMVAVMLGVCSIMGLPFVVAATVLSITHVNSLKESECSAPGEQPKFLGIREQR
 VTGLMIFILMGSSVFMTSILKFIIMPVLYGVFLYMGASSLKGIFLFDRIKLFWMPAKHQPDFIYLRHVPL
 RKVHLFTVIQMSCLGLLWIKVSRAAIVFPMMLALVFRKLMDFLFTKRELSWLDLMPESKKKKLEDA
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 EKKADSGKGVDRCTCL

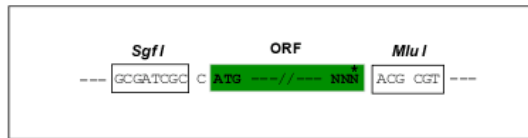
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

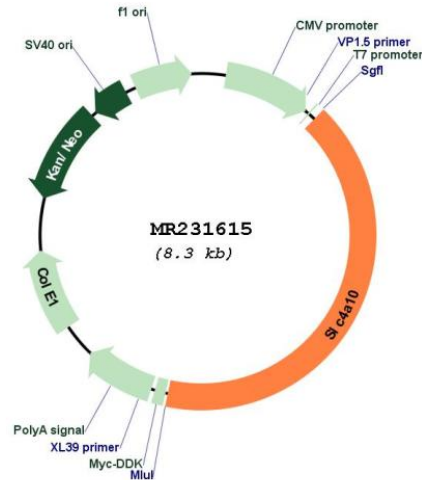
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001242378

ORF Size: 3408 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_001242378.1](#), [NP_001229307.1](#)

RefSeq Size: 5514 bp

RefSeq ORF: 3411 bp

Locus ID: 94229

UniProt ID: [Q5DTL9](#)

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/biocarbonate 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]