

Product datasheet for MR231564

Slc4a10 (NM_001242381) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Slc4a10 (NM_001242381) 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: >MR231564 representing NM_001242381
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGGATCGCC

ATGGAGATTAAGACCAGGGAGCCCAAATGGAGCCGCTGCTGCCTACGAGAAATGATGAAGAAGCCGTTG
TGGATAGAGGTGGAACACGCTCTATTCTCAAACACATTTTGAGAAAGAAGATTTAGAAGGCATCGGAC
ATTATTTATTGGAGTTCATGTGCCCTGGGTGGAAGAAAAGCCATCGTCGTACAGGCATCGTGGTCAT
AAGCACAGAAAGAGGGACAGAGAGAGAGATTCCGGACTGGAGGATGGAAGAGAGTCCCCTCTTTTGACA
CCCCATCGCAGAGGGTGCAGTTTATTCTTGAAGTGAAGGACGATGATGAGGAGCACCTCCCTCATGACCT
TTTCACAGAGCTGGATGAGATTTGCTGGCGTGAAGGGGAAGATGCTGAGTGGCGAGAGACAGCCAGGTGG
TTGAAATTTGAAGAGGATGTGGAAGATGGAGGAGAAAGATGGAGTAAGCCCTATGTGGCCACGCTTTCAT
TACACAGCTTGTTTGAGTTGAGAAGCTGCATCCTGAATGGAAGTGTGCTACTGGACATGCATGCCAACAC
GATAGAAGAAATTCAGATATGGTCCTTGACCAGCAGGTGAGTCCAGGCCAGTGAATGAAGATGTTCCG
CACAGGGTCCACGAAGCATTGATGAAGCAGCATCATACCAGAATCAGAAAAAATGGCTAACAGGATTC
CTATTGTCCGATCTTTGCTGATATTGGCAAGAAACAATCAGAACCAAATTCATGGATAAAAAATGGTCA
GGTTGTTTCTCCTCAGTCTGCTCCAGCCTGTGCTGAGAATAAAAAATGATGTCAGCAGGGAACAGCACT
GTAGACTTCAGCAAGGTTGATCTGCATTTTATGAAAAAGATTCCTCCGGGTGCTGAAGCTTCAAACATCT
TGGTAGGAGAAGTGGAGTTCCTAGACAGAACTGTGGTTGCCTTTGTCAGGTTGTCTCCAGCTGTCTTGCT
CCAAGGACTTGCTGAAGTTCCAATCCCAAGCAGATTTCTGTTTCATCCTTCTGGGACCCCTGGGAAAGGT
CAACAGTACCACGAGATTGGCAGATCGATTGCGACCTTAATGACTGATGAGGTGTTTCATGATGTTGCTT
ACAAAGCTAAAGACCGCAATGACTTGGTATCAGGAATTGATGAGTTTCTGGATCAGGTTACCGTCTTCC
TCCTGGAGAATGGGATCCAAGCATACGAATAGAACCTCCCAAAAATGTCCCTTCCAGGAGAAGAGGAAG
ATTCCTGTGTACCAAATGGAACAGCAGCTCATGGCGAAGCTGAGCCACATGGAGGACACAGCGGACCTG
AACTCCAGCGAACTGGGAGGATTTTGGGGGACTTATATTAGATATCAAAGAAAAGGCTCCATTCTCTG
GAGTGACTTCAGGGATGCTTTCAGCCTGCAAGTCTTAGCATCGTTCTGTTTCTACTGTGCATGCATG
TCTCCTGTGCATCATATTTGGAGGACTGTTGGGAGAAGCAACTGAAGGTCGTATAAGTGAATCGAATCAC



[View online >](#)

TCTTTGGAGCATCTATGACCGGGATAGCCTATTCTCTTTTTGGTGGACAGCCCCTGACCATATTAGGCAG
CACAGGACCTGTTTTGGTGTGGTAAAGATCTTGTTTAAGTTTTGCAAGGAATACGGCCTGTCGACTTG
TCCTTACGGGCCAGCATTGGGCTCTGGACTGCAACACTGTGCATCATCTTGTGGCCACGGACGCGAGCT
CACTCGTCTGCTACATCACCCGGTTTACCGAAGAGGCTTTTGCTTCTCATTGGCATCATTTTTATCTA
TGAAGCCCTGGAGAAGTTGTTTGGAGTCACTGAAACCTATCCAATCAATATGCACAATGATTTGGAAGT
CTGACACAATACTCATGTAAGTGTATGGAGCCACATAGTCCAGCAATGACACACTGAAGGAATGGCGGG
AGTCCAACCTTTCTGCCTGACATAACTGCGGGGAACCTAAGTGTGCAGAGTGCAGATCACTGCACGG
GGAGTATGTCGGGCGAGCCTGTGGCCATGGCCACCCCTACGTGCCAGATGTTCTTCTGTGTCGGTGATC
CTGTTCTTCTCCACAGTTACCATGTGAGCCACCCTGAAGCAGTTCAAGACCAGCCGCTATTTCCCAACCA
AGGTTTCGATCCATAGTGAGTGATTTTGGGTTTTTCTTACAATTCTGTGTATGGTTTTAATTGACTATGC
CATTGGGATCCCATACCAAAACTACAAGTACCAAGCGTTTTCAAGCCGACCAGAGACGACCGTGGCTGG
TTTGTACACCTTTGGTCCAACCCATGGTGGACAATCATAGCTGCCATCATCCAGCTTTACTCTGTA
CTATTCTGATTTTTCATGGACCAGCAGATTACAGCTGTGCATCAACAGAAAAGAGCACAAGCTAAAGAA
AGGTTGTGGCTATCACCTGGATCTGTTAATGGTGGCAGTATGCTCGGGTCTGCTCCATTATGGCCCTG
CCATGGTTTGTGGCTGCCACAGTCTCTCCATCACTCATGTCAACAGCCCTCAAGCTCGAATCAGAGTGCT
CTGCTCCAGGAGAAACCCAAGTTTCTCGGCATTGCGGAGCAGAGGGTGACCGGCTCATGATTTTTAT
TCTTATGGGTTTATCCGTTTTATGACCAGCATTCTGAAGTTTATCCCATGCCAGTGTTATACGGAGTG
TTTCTTTATATGGGTGCTTCGTCTCTCAAAGGAATTCAGTTATTTGATAGAATAAAGCTCTTCTGGATGC
CAGCCAAACATCAACCAGATTTTCTATCTAAGGCAGTGCCTCCGGAAAGTCCATCTTTCACAGT
CATTGAGATGAGTTGCTCGGCCTTCTGTGGATAATCAAAGTTTCGAGAGCTGCTATTGTCTTTCATG
ATGGTGTGGCACTAGTGTGTGAGAAAGTTGATGGACTTCTTGTTTACCAAACGGGAAGTCAAGTGGC
TTGATGATTTAATGCCTGAGAGTAAAAAGAAGAACTTGAAGATGCTGAGAAAGAAGAAGAAAGTAT
GCTAGCCATGGAGGACGAGGGCACAGTACAACCTCCACTGGAGGGACACTACAGAGACGACCCGCTGTG
ATCAATATTTCTGATGAAATGTCAAAGACTGCCATGTGGGGGAACCTTCTAGTTACTGCTGACAACCTCAA
AAGAAAAGGAGTACGCTTTCCTTCTAAAAGCTCCCTTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR231564 representing NM_001242381

Red=Cloning site Green=Tags(s)

MEIKDQGAQMEPLLPTRNDEEAVVDRGGTRSILKTHFEKEDLEGHRTLFIGVHVPLGGRKSHRRHRHRGH
KHRKRDRERDSGLEDRSPSFDTPSQRVQFILGTEDDDEEHLPHDLFTELDEICWREGEDAEWRETARW
LKFEEDVEDGGERWSKPYVATLSLHSLFELRSCILNGTVLLDMHANTIEEIAMVLDQQVSSGQLNEDVR
HRVHEALMKQHHQKLANRPIVRSFADIGKKQSEPNMMDKNGQVSPQSAPACAENKNDVSRENST
VDFSKVDLHFMKKIPPGAEASNILVGELEFLDRTVVAFFVRLSPAVLLQGLAEVPIPSRFLFILLGPLGKG
QQYHEIGRSIATLMTDEVFHDVAYKAKDRNDLVSGIDFLDQVTVLPPGEWDPSIRIEPPKNVPSQEKRK
IPAVPNGTAAHGEAEPHGGHSGPELQRTGRIFGGLILDIKRKAPFFWSDFRDAFSLQCLASFLFLYCACM
SPVITFGLLGEATEGRISAIESLFGASMTGIAYSLFGGQPLTILGSTGPVLFVEKILFKFCKEYGLSYL
SLRASIGLWTATLCIILVATDASSLVCIYTRFTEEFASLICIIFIYEALEKLFELSETYPINMHNLEL
LTQYSCNCEPHSPSNDTLKEWRESNLSASDIWGNLTVSECRSLHGEYVGRACGHGHPYVDPVLFWSVI
LFFSTVMSATLKQFKTSRYFPKVRISIVSDFAVFLTILCMVLIDYAIIGIPSPKLQVPSVFKPTRDDRGW
FVTPLGNPWWTIIAAIIPALLCTILIFMDQQITAVIINRKEHKLKKGCGYHLDLLMVAVMLGVCSIMGL
PWFVAATVLSITHVNSLKLESECSAPGEQPKFLGIREQRTVGLMIFILMGSSVFMSTILKFIIMPVLYGV
FLYMGASSLKGIQLFDRIKLFWMPAKHQPDFIYLRHVPLRKHVHLFTVIQMSCLGLLWIIKVSRAAIVFPM
MVLALVFRKLMDFLFTKRELSWLDLMPESKSKKLEDAEKEEQSMLAMEDEGTVQLPLEGHYRDDPSV
INISDEMSKTAMWGNLLVTADNSKEKESRFPKSSPS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

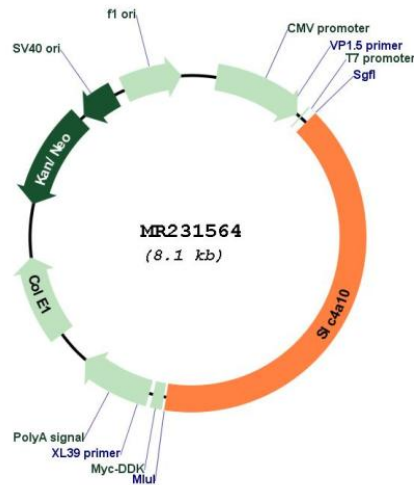
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001242381

ORF Size: 3261 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_001242381.1, NP_001229310.1</u>
RefSeq Size:	5460 bp
RefSeq ORF:	3264 bp
Locus ID:	94229
UniProt ID:	<u>Q5DTL9</u>
Cytogenetics:	2 C1.3
MW:	122.9 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]