

## Product datasheet for **RC215484**

### SLC4A5 (NM\_133478) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SLC4A5 (NM_133478) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC4A5
Synonyms:	NBC4; NBCe2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC215484 representing NM_133478 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGGTGAAGGAGGAGAAGGCTGGGGTAGGAAAGCTGGACCACACTAACCACAGGAGGAGATTCGG  
ATCAGAAAAGAAATGCCCTCTATCCACATTGGGCTTCCAGTACCCACTTACCCTCAAAGAAAACTGACCA  
GAAGGGACATCTTCAGGCCTGCAAAAAGTCCACTGGGGCTGCGGCCAGACCAGCCACAGCAGGAACTG  
ACTGGCCAGGGAGTGGGCAAGCAGCCAGGACAGCAGCATGGATCTTATCAGCAGGACTCGGTCCCCAG  
CTGCTGAGCAGCTCCAGGACATCTGGGGGAGGAAGATGAGGCTCCCAACCCACCTCTTTACAGAGAT  
GGATACTCTGCAGCATGACGGAGACCAGATGGAGTGGAAGGAGTCAGCCAGGTGGATAAAGTTTGAAGAA  
AAGGTAGAGGAAGGCGGCAACGCTGGAGCAAGCCCCACGTGTCCACACTATCCCTGCACAGCCTCTTCG  
AGCTCCGTACCTGCCTGCAGACGGGACGGTGTGCTGGATTTGGACAGTGGCTCCTTACCACAGATCAT  
AGATGATGTCATTGAGAAGCAGATTGAGGATGGTCTCCTGCGGCCAGAGCTCCGGGAGAGGGTCAGTTAC  
GTCCTCCTGAGGAGGCACCGCCACCAAACAAGAAGCCCATCCACCGCTCCTTAGCTGACATTGGGAAGT  
CAGTCTCCACCACAAATCGCAGTCTGCCCGGAGCCCTGGTGTGCTGGCCGAGTCTACACACTCCACGGA  
AGACCTGCGGATGCGGCAGAGTGCAAATTACGGACGTCTGTGTCATGCCAGAGCAGAAGCATGAATGAC  
ATTTCTCTCACCCCAAACACAGACCAGCGGAAAAACAATTCATGAAGAAGATCCCAAGGACTCAGAAG  
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GTCGGCCATGCTGGGAGGAGTGACCGAGGTGCCTGTCCCACAGATTTCTGTTTATACTACTGGGACCT  
TCTGGGAGAGCAAAATCTACAATGAAATTGGCCGTGCCATTGCAACCTCATGGTAGATGATCTCTTCA  
GTGACGTGGCCTACAAAGCCGCAATCGGAAGATCTGATCGCAGGAATTGATGAATTTCTGGATGAGGT  
CATCGTCTTCTCCTGGAGAATGGGACCAAATATCCGGATTGAGCCCCCAAGAAGGTGCCCTCTGCT  
GACAAGAGGAAATCTGTGTTCTCCTAGCAGAGCTGGGCCAGATGAATGGCTCTGTGGGAGGAGGCGGC  
GAGCTCCTGGAGGAGCAATGGAGGTGGTGGTGGTGGTGGCAGTGGCGGGGGCTGGCAGTGGCGGGC  
CGGCGGAACAAGCAGCGGGGATGATGGAGAGATGCCAGCCATGCATGAAATCGGGGAGGAACCTATCTGG  
ACAGGAAGGTTCTTCGGTGGCCTGTGTCTGGATATCAAGAGGAAGTTGCCTGGTCCCAAGTGACTTCT



ATGATGGCTTCCACATTCAGTCCATCTCTGCCATCCTATTCATCTACCTCGGCTGTATCACCAACGCGAT  
CACCTTTGGTGGGCTTCTGGGGGATGCCACCGACAATTATCAGGGAGTGTGGAGAGCTTCTGGGCACT  
GCCATGGCTGGCTCCTGTTCTGCCTCTTCTCGGGACAGCCTCTCATCTTCTCAGCAGCACGGGCCCA  
TCCTCATCTTTGAGAAGCTCCTCTTCGACTTCAGCAAAGGCAATGGCCTGGACTACATGGAGTTCGGCCT  
CTGGATTGGCCTACACTCAGCTGTCAGTGCCTTATCCTAGTGGCCACAGATGCCAGCTTATCATCAAA  
TATATCACCCGCTTACCAGGAGGGCTTCTCCACCCTTATCAGCTTCATCTTCTACGATGCCATCA  
AGAAGATGATCGTGCCTCAAGTACTACCCTATCAATATGGACTCAAGCCAACTTCTACTCACTACCTA  
CAAGTGGCAGTGTGCGCCCTGACACAGTGAATACAACCGTGTCAATGCCTCAGCCCAATTGGCACCA  
GACACCAACGCTTCTCTGTACAACCTCCTTAACCTCACAGCGTTGGACTGGTCCCTGCTGAGCAAGAAGG  
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CTTCATCCTTTTCTTGGGACATACTCCATGACCCTGACCCTGAAGAAGTTCAAATTCAGCCGCTATTTT  
CCTACCAAGTCCGGGCCCTGGTGGTACTTTCCATTGTTTTCTCCATCCTGATGTTCTGTGGAATCG  
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GAGACCAAGTGGCCCTGGGGAGCAGCCCCAGTTTCTGGGAGTCAAGGAACAGAGAGTAACCGGCATCATCG  
TCTTATCCTGACGGGAATCTCTGTCTTCTGGCTCCCATCCTAAAGTGTATCCCTGCCGGTGTGTA  
CGGAGTCTTCTTACATGGCGCTGGCCTCCCTGAATGGCATCCAGTCTGGGAACGCTGCAAGCTCTTC  
CTGATGCCAGCAAGCACCAGCCGACCATGCCTTCTGCGGCACGTGCCGTGCCCGGATCCACCTCT  
TCACCTGGTGCAGATCCTCTGCCTGGCGTCTCTGGATCCTCAAATCCACGGTGGCTGCCATCATCTT  
CCCGTTCATGATCCTGGGCCTCATCATGTTTCAAGGCTTCTGGATTTTCTTTCCAGCAGCACCTG  
GCCTGGATTGACAACATCCTCCAGAGAAGGAAAAAAGGAGACAGACAAGAAGAGAGAAAAAAG  
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TGTCCAATCAGATCCCCAAAACGGTATCCACTGCATTGCCAGAAAAAGATCTTCCAGTTGGAGTTACTCA  
CTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC215484 representing NM\_133478  
Red=Cloning site Green=Tags(s)

MKVKEEKAGVGLDHTNHRRRFPDQKECPPIHIGLPVPTYRQRKTDQKGHL SGLQKVHWGLRPDQPQEL  
TGPGSGASSQDSSMDLISRTRSPAAEQLDILGEEDEAPNPTLFTEMDTLQHDGDMEWKESARWIKFEE  
KVEEGGERWSKPHVSTLSLHSLFELRTCLQTGTVLLDLDSGSLPQIIDVIEKQIEDGLRPELRERSY  
VLLRRHRHQTKKPIHRSLADIGKSVSTNRSRSPGAGPSLHHSTEDLRMRQSANYGRLCHAQSRSMND  
ISLTPNTDQRKNKFMKKIPKDSEASNVLVGEVDFLDQPFIAFVRLIQSAMLGGVTEVPVTRFLFILLGP  
SGRAKSYNEIGRAIATLMVDDLFSVAYKARNREDLIAGIDEFLDEVIVLPPGEWDPNIRIEPPKVP  
DKRKS VFLAELQGMNGSVGGGGAPGGGGGGGGGGGGGAGSGGAGGTSSGDDGEMPAMHEIGEELI  
W TGRFFGGLCLDIKRKLWFPSPDFYDGFHIQSISAILFIYLGICITNAITFGLLGDATDNYQGMESFLGT  
AMAGSLFCLFSGQPLIILSSTGPILIFEKLLDFSKGNGLDYMEFRLWIGLHSAVQCLILVATDASFIIK  
YITRFTEEGFSTLISFIFIYDAIKKMIGAFKYYPINMDFKPNFITTYKCECVAPDVTNTVFNASAPLAP  
PTKNALYNLLNL TALDWSLLSKKECLSYGGRLLGNSCKFIPDLALMSFILFFGTYSMTLTLKKFKFSRYF  
PTKVRALVADFSIVFSILMFCGIDACFLETPLKLVPSVIKPTRPDRGWVAPFGKNPWWVYYPASILPAL  
LVTILIFMDQITAVIVNRKENLKAAGYHLDLFWVGILMALCSFMGLPWYVAATVISIAHIDSLKMET  
ETSAPGEQPFLGVREQRVTGIIIVFILTGISVFLAPILKCIPLVLYGVFLYMGVASLNGIQFWERCKLF  
LMPAKHQPDHAFLRHVPLRRIHLFTLVQILCLAVLWILKSTVAAIIFPVMILGLIIVRRLDIFISQHD  
LAWIDNILPEKEKEDTKRKRKKG AHEDCDEEPQFPSPSVIKIPMESVQSDPQNGIHCIAKRSSWSYS  
L

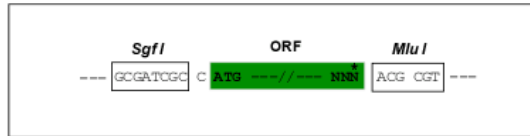
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

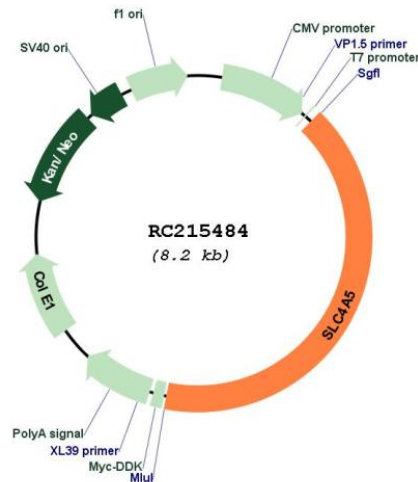
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_133478

**ORF Size:** 3363 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\\_133478.3](#)

**RefSeq Size:** 6364 bp

**RefSeq ORF:** 3366 bp

**Locus ID:** 57835

**UniProt ID:** [Q9BY07](#)

**Cytogenetics:** 2p13.1

**Protein Families:** Transmembrane

**MW:** 124.6 kDa

**Gene Summary:** This gene encodes a member of the sodium bicarbonate cotransporter (NBC) family, part of the bicarbonate transporter superfamily. Sodium bicarbonate cotransporters are involved in intracellular pH regulation and electroneutral or electrogenic sodium bicarbonate transport. This protein is thought to be an integral membrane protein. Multiple transcript variants encoding different isoforms have been found for this gene, but the biological validity of some variants has not been determined. [provided by RefSeq, Jul 2008]