

Product datasheet for RC210512

KCC4 (SLC12A7) (NM_006598) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCC4 (SLC12A7) (NM_006598) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCC4
Synonyms:	KCC4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210512 representing NM_006598 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGCCGGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGGCGC
GCC

ATGCCCACTTACCGTGGTGGCGTGGAGGCTCACGCCGACGGCGGGGACGAGACTGCCGAGC
GGACGGAGGCTCCGGGACCCCCGAGGGCCCCGAGCCGAGCGCCCCAGCCGGGAGATGGAATCCAAG
AGAAAACAGCCATTCTCAACAATGTCGAGGTGGAACAAGAGAGCTTCTTTGAAGGGAAGAATGGCA
CTTTTCGAGGAGGATGGACAGTAACCCCATGGTGTCTCGCTCAACAAGCTGGCCAACTACACCA
ACCTGAGCCAGGGCGTGGTGGAGCACGAGGAGGACGAGGAGCCGGCGGGGAGGCCAAGGCTCCGCG
CATGGGCACCTTCATCGGCGTCTACCTGCCGTGCCTGCAGAACATCCTGGGCGTCATCCTTCCCTGCGC
CTGACGTGGATCGTGGGGTGGTGGTGTCTGGAGTCTTCTCATCGTGGCCATGTGCTGCACATGTA
CAATGCTGACCGCCATTTCCATGAGTGCATCGCTACCAACGGTGTGGTCCCAGCTGGCGGGTCTACTA
CATGATATCGCGCTCGCTGGGACCCGAGTTTGGAGGCGCTGTCCGCTCTGCTTCTACCTGGGCACGACG
TTTGCAGGGGCCATGTATTTTTGGGACCATCGAGATTTTTCTGACGTACATCTCCCGGGTGGCGCA
TCTTCCAGGGGAGGCTGCAGGTGGCGAGGCGGCCCATGCTGCACAACATGCGTGTGTACGGCACGTG
CACGCTCGTGTCTATGGCCCTGGTGGTCTTCTGGGCGTCAAGTATGTCAACAAGCTGGCGTGGTCTTC
CTGGCCTGCGTGTGCTCCATCCTGGCCATCTATGCCGCGTCATCAAGTCTGCCTTCGACCCCCCGG
ACATCCCGGTCTGCCTCCTGGGAACCGCACGCTGTACGGCGCAGCTTGCATGCCTGCGTCAAGGCCTA
CGGCATCCACAACAACCTAGCCACCTCCGCGCTCTGGGCGCTTCTGCAACGGCTCCCAGCCCAGCGCC
GCCTGTGACGAGTACTTCATCCAGAACAACGTACCGAAATCCAGGGCATCCCAGGCGCGGCCAGTGGTG
TCTTCTGGAGAACCTGTGGAGTACGTACGCGCACGCGGGGCGTTTGTGGAGAAGAAAGGTGTGCCCTC
GGTCCCCGTGGCAGAGGAGGAGCCGTGCCAGCGCACTGCCCTACGTGCTCACCGACATCGCGGCTCCTTC
ACCCTGCTGGTTGGCATCTACTCCCTCCGTACCGGTATCATGGCGGTTCAAACCGTCCGGGGACC
TCAAGGATGCACAGAAGTCCATCCCCACGGGACCATCCTGGCCATAGTGACGACGTCTTTCATCTATCT
CTCCTGCATTGTGCTGTTGGGCGCTGCATTGAAGGCGTGGTCTTACGAGATAAGTTCGGGGAGGCCCTG



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CAGGGGAACCTGGTCATCGGCATGCTGGCCTGGCCCTCCCCCTGGGTATCGTCATCGGCTCCTTCTTCT
 CCACCTGCCGTGCCGGCCTGCAGAGCCTCACGGGGCACCAGCCCTACTGCAGGCCATTGCCCGTACCG
 CATCGTCCCCTTCTGCAGGTGTTTGGCCACGGGAAGGCCAACGGGGAGCCACGTGGCGCTGTGCTG
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 GCGTCCACGCTTCAAGTTCTACCACTGGACCTGTCCTTTCTGGGTATGAGCCTGTGCTGGCGTGTGAT
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 GCTGCGCGTGGAGCAGGTCCCCCACACCAAGAACTGGAGGCCCCAGGTGCTGGTGATGCTGAACCTG
 GACGCGGAGCAGGCCGTGAAGCACCCCCGCTGCTGCTTACGTCGCAGCTGAAGGCCGGAAGGGCC
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 CACCACCGCCGCGCACCAGGCTCTGCTGGTGGCAAGAAGCTCGACTCGTTTCCGCAAAACCAGGAGCGC
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 CACCGCGTCCCACACCGCGCGGCGAGCCAGGACCAAGCGCCCTACGCCAGACAAGGTGCAGATGACC
 TGGACCAAGGAGAAGCTGATCGCTGAGAAGTACAGGAGCAGAGACACCAGCCTATCCGGTTTCAAAGACC
 TCTTCAGCATGAAGCCGACCAAGTCCAAGCTCAGCGGATGCACACGGCTGTGAAGCTCAATGGCGTCT
 CCTCAACAAGTCCAGGATGCGCAGCTGGTCTGCTCAACATGCCAGGTCTCCCAAAAACCGCGAGGGA
 GACGAGAACTACATGGAGTTTCTTGAAGTCTGACCGAGGGGCTGAACAGAGTCTCTGCTCAGGGGTG
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ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210512 representing NM_006598
 Red=Cloning site Green=Tags(s)

MPTNFTVVPVEAHADGGGDETAERTEAPGTPGPEPERPSPGDGNPRENSPFLNNVEVEQESFFEGKNMA
 LFEEEMDSNPMVSSLLNKLANYTNLSQGVVEHEEDESRRREAKAPRMGTFIGVYLPCLQNILGVILFLR
 LTWIVGVAGVLESFLIVAMCCTCTMLTAISMSAIATNGVVPAGGSYYMISRSLGPEFGGAVGLCFYLGT
 FAGAMYILGTIEIFLTYISPGAIFQAEAAAGGEEAAMLHNMRVYGTCTLVLMALVVFVGVKVVNKLALVF
 LACVVLILAIYAGVIKSAFDPPDIPVCLLGNRTL SRRSFDACVKAYGIHNSATSALWGLFCNGSQPSA
 ACDEYFIQNNVTEIQGIPGAASGVFLENLWSTYAHAGAFVEKKGVPSPVAEESRASALPYVLTIDIAASF
 TLLVGIYFPSVTGIMAGSNRSGDLKDAQSIPTGTILAIIVTTSFIYLSCLVIFGACIEGVVLRDKFGEAL
 QGNLVI GMLAWPSPWVIVIGSFFSTCGAGLQSLTGAPRLLQAIARDGIVPFLQVFGHGKANGEPTWALLL
 TVLICETGILIASLDSVAPILSMFFLMCYL FVNLAACAVQTLRLTPNWRPRFKFYHWTLSFLGMSLCLALM
 FICSWYYALSAMLIAGCIYKYIEYRGAKEWGDGIRGLSLNAARYALLRVEHGPHTKNWRPQVLVMLNL
 DAEQAVKHPRLLSFTSQLKAGKGLTIVGSVLEGTYLDKHMEAQRAEENIRSLMSTTEKTKGFCQLVVSSSL
 RDGMSHLIQSAGLGGLKHNTVLMAWPASWKQEDNPF SWKNFVDTVRD TTAHQALLVAKNVDSFPQNQER
 FGGGHIDVWVIVHDGMLMLLPFLLRQHKVWRKCRMRIFTVAQVDDNSIQMKKDLQMFLYHLRISAEVEV
 VEMVENDISAFETYERTLMMEQRSQMLKQMLSKNEQEREACL IHDRNTASHTAAAARTQAPPTPKVQMT
 WTRKLI AEKYRSRDTLSLGFKDLFSMKPDQSNVRRMHTAVKLVGVVNLKSQDAQLVLLNMPGPPKNRQG
 DENYMEFLEVLTEGLNRVLLVRGGGREVITIYS

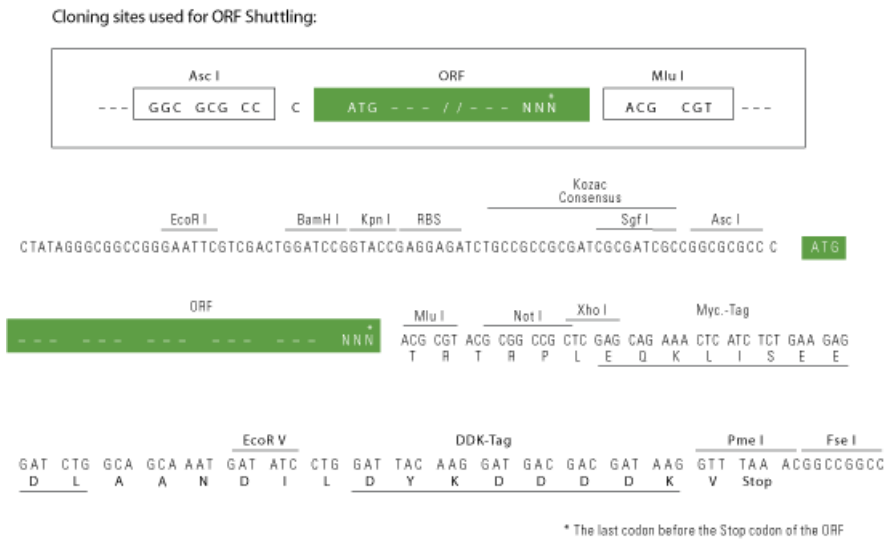
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3404_f06.zip

Restriction Sites: AscI-MluI

Cloning Scheme:



ACCN: NM_006598

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:**
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_006598.3](#)

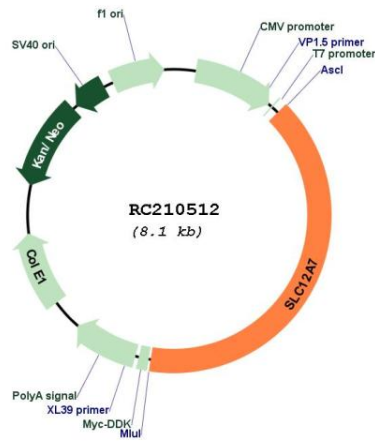
RefSeq Size: 5239 bp

RefSeq ORF: 3252 bp

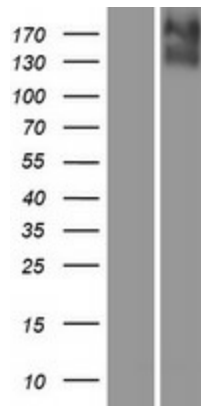
Locus ID: 10723

UniProt ID: [Q9Y666](#)
 Cytogenetics: 5p15.33
 Protein Families: Transmembrane
 MW: 118.9 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]

Product images:



Circular map for RC210512



Western blot validation of overexpression lysate (Cat# [LY416525]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210512 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).