

Specifications:

Gene:	hSLC12A7
Accession:	NP_006589
Insert size:	3265bp
Concentration:	10µg at 0.2µg/µL

Description

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

Preparation and Storage

Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

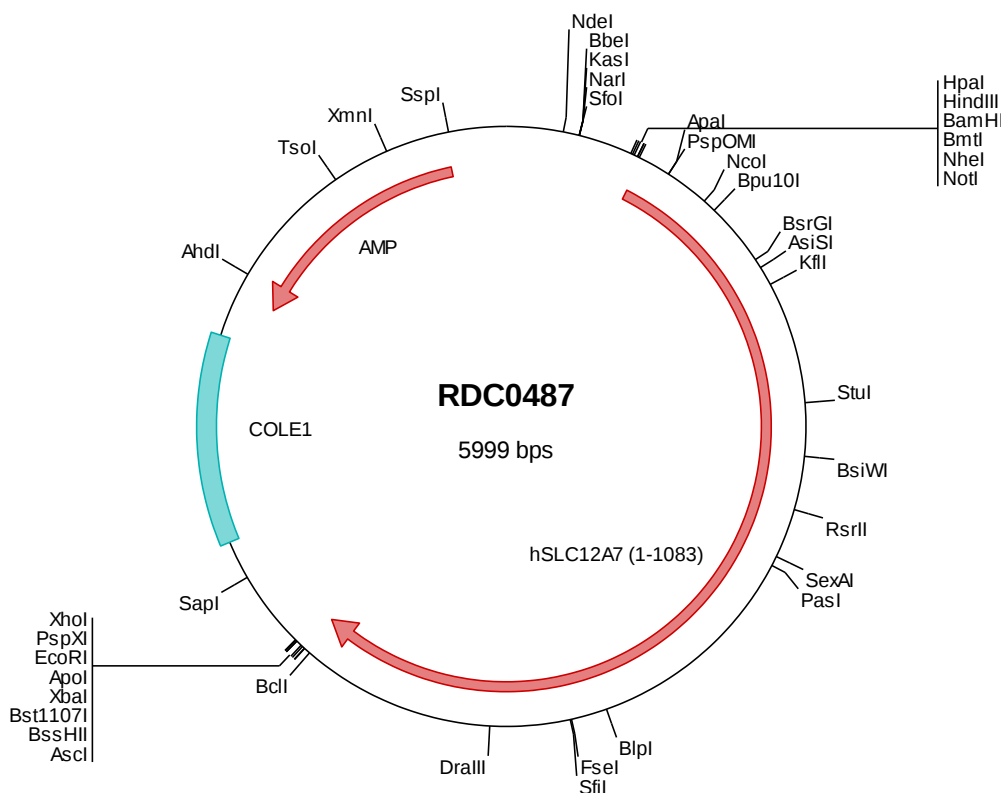
hKCC4/SLC12A7 cDNA Plasmid

**SLC12A7 solute carrier
family 12
(potassium/chloride
transporters), member 7
[*Homo sapiens*]**

Also known as: KCC4

Summary:

Cation chloride cotransporters, including the potassium-chloride cotransporters (KCCs), are involved in the electroneutral movement of ions across the plasma membrane. SLC12A7 contains 12 membrane-spanning segments, 8 phosphorylation sites, 7 of which are in the C terminus, and 4 potential N-glycosylation sites. It is important for potassium recycling by siphoning potassium ions after their exit from outer hair cells into supporting Deiters cells, where potassium enters the gap junction pathway.





> RDC0487 Plasmid DNA Sequence

```
1   tcgcgcggtt   cggatgatgac   ggtgaaaacc   tctgacacat   gcagctcccg   gagacggtca   cagcttgtct   gtaagcggat   gccgggagca   gacaagcccg
101  tcaggggcgc   tcagcgggtg   ttggcgggtg   tcggggctgg   cttactatg   cggcatcaga   gcagattgta   ctgagagtgc   accatatgcg   gtgtgaaata
201  ccgcacagat   gcgtaaggag   aaaataccgc   atcaggcgcc   attcgccatt   caggctgcgc   aactgttggg   aagggcgatc   ggtgcgggcc   tcttcgctat
301  tacgccagct   ggcgaaaggg   ggatgtgctg   caaggcgatt   aagttaggta   acgccagggt   tttccagctc   acgacgttgt   aaaacgacgg   ccagtgaatt
401  ggagacgtgt   taacaagctt   ggateccgata   tcgctagcgc   ggccgccacc   atgccacca   acttaccggt   ggtgcccgtg   gaggtccacg   ccgacggcgg
501  cggggacgag   cggcgcgagc   ggacggaggg   tcggggcacc   cccgagggcc   ccgagccaga   gcgcccacgc   ccgggagatg   gaaatccaag   agaaaacagc
601  ccattctcca   acaatgtcga   ggtggaacaa   gagagcttct   ttgaagggaa   gaacatggca   cttttcaggg   aggagatgga   cagtaacccc   atggtgtcct
701  cgctgctcaa   caagctggcc   aactacacca   acctgagcca   gggcggtggt   gagcacgagg   aggacgagga   gagccggcgg   ccgggagcca   aggtcccgcg
801  catgggcacc   ttcactcgcg   tctacctgcc   gtgctctgag   aacatcctgg   gogtcatcct   ctctctgcgc   ctgacgtgga   tcgtgggggt   ggctggtgtc
901  ctggagtcct   tctcatcgt   ggcatgtgc   tgcacatgta   caatgctgac   cgccatttcc   atgagtgcga   tcgctacca   ccgtgtggtc   ccagctggcg
1001 ggtctacta   catgatatcg   cgctcgctgg   gacccgagtt   tggaggcgct   gtggccctct   gcttctacct   gggcacgacg   tttgcagggg   ccattgtata
1101 tttggggcgc   atgctgctgc   tcttgacgta   catctcccgc   ggtgcggcca   tcttccaggc   ggaggctgca   ggtggagagg   ctgcccccat   gctgcacaac
1201 atgcgttgt   acggcagctg   cagcgtcgtg   ctoatggccc   tgggtgtctt   cgtggcgctc   aagtatgtca   acaagctggc   gctggtcttc   ctgcccctgc
1301 tcgtgctg   catctcgcc   atctatgcc   gcgtcatcaa   gtctgcttc   gacccccgc   acatcccggt   ctgcctctg   gggaaacgca   cgctgtcacg
1401 tggggcgct   cagagatct   cggcaacc   cgccatcag   acaactccgc   ccactccgc   gctctggg   ctcttctgca   accgttccca   ccggcgccc
1501 gctgtgacg   agtaactcat   ccagaacac   gtoaccgaaa   tccaggcgat   ccggggcgcg   gccagtgtg   gtcagtgtg   tottctgga   gaaactgtg
1601 cgcacgcgg   ggcgtttgt   gagaagaaag   gtgtgccctc   ggtgcccg   gcagaggaga   gccgtgccag   cgcactgccc   tacgtgtcca   ccgacatcgc
1701 catgggcacc   acctcgctg   ttgcactcta   ctctcccctc   ctcccgctga   tctacgctgg   tccaaacccg   tccggggacc   tcaaggatgc   acaggaagtc
1801 atccccacgg   ggacatcct   ggccatagtg   acgacgtctt   tcatctatct   ctctgcatt   gtgctgtttg   gggcctgcat   tgaaggcgtg   gtcttacgag
1901 taagtctgg   ggaggccctg   caggggaaac   tggctatcgg   catgctggcc   tggccctccc   cctgggtcat   cgtcatcgcc   tccttctctt   ccacctgccc
2001 tggggcgct   cagagatct   cggcgcccca   cgccctatg   caggccattg   ccctgacgg   catcgctcca   catcgctcag   tctctgcaag   cgggaaagcc
2101 aacggggagc   ccacgtgggc   gctgctgctg   acagtctca   totgcgagac   tggcatcttc   atcgctctc   tggacagcgt   ggccccgac   ctctcatgt
2201 tottctcat   gtgctacctg   ttcgtgaac   tggcctgcgc   cgtgcagacc   ctgctacgta   cctgtgtctc   atcgctctc   cccccaactg   cgttccacgc
2301 cctgtctctt   ctgggtatga   gcctgtgct   ttcactgtct   cctgtgtctc   ttcgtgtctc   cgcgtgtg   gccatgctca   tcgtgtgcca   cggtgagcca
2401 tacatcgagt   accgcggggc   cgagaaggag   tggggcgatg   gcatcctgtg   cctatcctct   aacgcgcgcc   gctacgcct   gctgcgcgtg   gagcacggtc
2501 cccccacac   caagaactgg   agccccagg   tgctggtgat   gctgaacctg   cagcgggagc   aggcctgtaa   gcacccccgc   gtgctgtcct   tcaactgcga
2601 gctgaaggcc   ggcaaggccc   tgacctcgt   gggctcgtgtg   gctgagggga   cgtcactgga   cgtcactgga   gaggtccagc   ccggccagga   gaacatcagg
2701 tccctaata   gcacagagaa   gaccaaggcc   tctgtccagc   tgggtgtctc   gtccagcctg   cgggatggca   tgtcccacct   gatccagtcg   gccgctgg
2801 gccgctgaa   gcacaacacg   gtgctcatgg   cctggccccc   atcctggaa   caggaggaca   acccttctc   ctggaagaac   tttgtagaca   ccgtccgcga
2901 caccacgcc   gcgacacagg   cctgtgtggt   ggccaagaa   gtgcactcgt   ctcgcaaaa   ccaggagcgc   ttcggcgggg   ttcgcatoga   cgtgtggttg
3001 atcgtgca   accggcgct   gctcatgctg   ctgcctctcc   tgcctgcaca   gcaacaagtg   tggaggaa   gccgatggc   tatcttcaac   gtggccccg
3101 tggaacgaa   cagcatccag   atgaagaagg   acctgcagat   gttctgtgac   caettgcgca   tcagcgccga   ggtggaggtg   gtggagatgg   ttgaaaacga
3201 catatctgt   ttcacctacg   agagacact   aatgtaggag   cagagtgca   agatgtgtaa   gcagatgcag   ctgtccaa   acgagcagga   gccgatggcc
3301 cagctgtac   acgacaggaa   cacccgctcc   cacaccgcgg   cggcagccag   gacccaagcg   ccgcctacgc   cagacaaggt   gcagtgacc   tggaccaggg
3401 agaagctga   cgctgagaag   tacaggagca   gagacaccag   cctacttggt   ttcaaagacc   tottcaagc   gaagccggac   catcccaacg   tcaggcggat
3501 gcacaagct   gtgaagctca   atggcctcgt   cctcaaacag   cctcaggatg   ctcagctggt   cctgtccaac   atgccaagtc   ctccccaaaa   ccggcaggga
3601 gacgagaact   acatggaggt   tcttgaagtc   ctgaccaggg   gggctgaacag   agtctctctg   gtcagggggtg   gccgcccggg   ggtgatcacc   atctactcct
3701 aaaggcgcc   cagtatactc   tagactgcac   accggggaa   tctctcgagc   gctcgtctct   agcttggcgt   aatcatggtc   atagctgttt   cctgtgtgaa
3801 attgttatcc   gctcacaaat   ccacacaaca   tacgagccgg   aagcataagg   tgtaaaagcct   ggggtgccta   atgagtgcag   taactccat   taattgcgtt
3901 ccgctcaactg   cccgctttcc   agtcggaaaa   cctgtcgtgc   cagctgcatt   aatgaatcgg   ccaacgcgcg   gggagaggcg   gtttgcgtat   tgggcgctct
4001 tccgcttctc   cctcactga   ctgcctgcgc   tcggtcgttc   ggtgcggcg   agcggtatca   gctcactcaa   aggcgtgta   acggttatcc   acagatcag
4101 gggataacgc   aggaagaaga   atgtgagcaa   aagggccagca   aaagccagca   aaccgtaaaa   agggcgcgtt   gctggcgctt   ttccataggg   tccgcccccc
4201 tgacgagact   cacaaaaatc   gacgctcaag   tcagaggttg   cgaaacccga   caggactata   aagataccag   gcgtttcccc   ctggaagctc   atcgtgtgoc
4301 tctcgtttc   cgacctgccc   taactgcgc   taactgcgc   ctcttctccc   ttcgggaagc   gtggcgcttt   ctcaatgctc   acgctgtag   tatctcagtt
4401 cgggtgtagt   cgttcgctcc   aagctgggct   gtgtgcacga   acccccctg   cagcccagcc   gctgcgctt   atccggtaac   tatcgtcttg   agtccaaccc
4501 ggtgaagcac   gacttatcgc   cactgcgacc   agccactggt   acagagatta   gcagactgag   gtatgtaggc   ggtgctacag   agttctgaa   gttggtgctt
4601 aactacgct   acactagaag   gcatgtatct   ggtatctgcg   ctctgtgaa   gcagtttacc   ttcgaaaaaa   gagttgtag   ctctgtatcc   ggcgaacaaa
4701 ccaccgctg   tagcgggtgt   tttttgttt   gcaagcagca   gattacgcgc   agaaaaaaag   gatctcaaga   agatcctttg   atcttttcta   cggggtctga
4801 cgctcagtg   aacgaaaaat   cagcttaagg   gattttgttc   atgagattat   caaaagtgag   cttcacctag   atcttttaa   ataaaaatg   aagtttttaa
4901 tcaatcaaaa   gtatatatga   gtaaaacttg   tctgacattc   accaactgct   aactcagtag   gcactatctg   atctatttct   tctatttctg   tatcatcatg
5001 ttgctgact   ccccgctgtg   tagataacta   cgataccgga   gggcttacca   gggcttacc   tctggcccc   gtgctgcaat   gataccgcga   gacccacgct
5101 agatttatca   gcaataaac   agccagccgg   aagggccag   cgcagaagt   gctctgcaac   tttatccgc   tccatccagt   ctattaatgt   ctatattgt
5201 gctagagt   gtagtttgc   agttaatagt   ttgctgcaag   ttgttgcatt   tgcataagc   atcgtggtg   cagcctcgtc   gtttggtag   gtttggtag
5301 gctccggtc   ccaacgatca   aggcgagtta   catgatcccc   catgttgtgc   aaaaaagcgg   ttagctcctt   cggtcctccg   atcgttgtca   gaagtaagtt
5401 ggcccgagt   ttatcactca   tggttatggc   agcactgcat   aattctctta   ctgtcatgcc   atccgtaaga   tgcttttctg   tgactgtgta   gtactcaacc
5501 aagtcatct   ggaatagtg   tatgcggcga   ccgagttgct   cttgcccgc   gataataacc   cgcaacatag   cgcaacatag   cagaacttta   aaagtgtc
5601 tcattgaaa   acgtttcttc   gggcgaaaac   tctcaaggat   cttaccgctg   ttgagatcca   gttcgatgta   acccactcgt   gcaccaact   gatcttcagc
5701 atcttttact   ttcaccagcg   ttcttgggtg   agcaaaaaa   ggaagtcgaa   atgcccga   aaagggaaata   agggcgacac   ggaatgtgtg   aatactcata
5801 ctcttctct   ttcataatta   ttgaagcatt   tatcagggtt   atgtgtctat   gagcggatac   atatttgaat   gtatttagaa   aataaaca   atagggttct
5901 cgcgcacatt   tccccgaaa   gtgccacctg   acgtctaaga   aaccattatt   atcatgacat   taacctata   aaataggcgt   atcacgagc   cctttcgtc
```

> RDC0487 Translated Insert Sequence

```
1   mptnftvvpv   eahadgggde   taerteapgt   pegpeperps   pgdgnprens   pflnnveveg   esffegknma   lfeeedmsnp   mvssllnkla   nytnlsqgvv
101  eheedeersr   reakaprmgt   figvylplcl   nilgvilflr   ltwivgvagv   lesflivamc   ctctmltais   msaiatngvv   paggsyymis   rslgpefgga
201  vglcfllylt   fagamyilgt   iefltylisp   gaafqaeaa   lfwgeaamllh   mrvygtctlv   lmalvfvfvg   kyvnlalvf   lacvvlsla   iyagviksaf
301  ddpdlpvc11   gnrtlsrrsf   daccvaygih   nnsatsalwg   lngsaaspqa   acdeyfiqnn   vteiqgipga   asgvflenlw   styahagafv   ekkqvpvsvp
401  aeerasasalp   yvltldiaaf   tllvgiyfps   vtgimagsnr   sgdlkdagks   iptgtilaiv   ttsfiylsci   vlfgaciegv   vlrdkfgeal   qgnlvigmla
501  wpspvwivig   sffstcgagl   qsltgaprll   qaiardgivp   flwvfghgka   ngeptwalll   tvlicetgil   iasldsvapi   lsmfflmcyl   fvnlacavgt
601  llrtpnprvpr   fkfhywtlsl   lgmslclalm   ficswyltvg   amliagciyk   yieyrgaekc   wgdgirglsl   naaryallrv   ehgpphtknw   rpvqlvmlnl
701  daeqavkhpr   llsftsqika   gkgltivgsv   legtyldkhm   eaqraeenir   slmstektkg   fcqlvsssl   rdgmshliqs   aglgglkhnt   vlmawpaswk
801  qednfpfswk   fvdvtrdtta   ahqallvakn   vdsfpqnqer   fgghjdlvww   ihvdghgmml   lpflrlrhkv   wrkcrmrift   vaqvddnsiq   mkkdlgmfly
901  hlrisaevva   fvmvendisa   ftyertlmme   qrsqmlkmgq   lsknegerea   glihdnrtas   htaaaartga   ptpdkvkqmt   wrkleiaek   yrsrdtslsg
1001 fkdlfsmkpd   qsnvrhmhta   vklnvgvlnk   sqdaqvlvln   mpgppknrgg   denymeflev   ltegnrvll   vrgggrevit   iys
```