

## Product datasheet for **RC210194**

### **NCKX2 (SLC24A2) (NM\_020344) Human Tagged ORF Clone**

#### **Product data:**

|                           |                                                    |
|---------------------------|----------------------------------------------------|
| Product Type:             | Expression Plasmids                                |
| Product Name:             | NCKX2 (SLC24A2) (NM_020344) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                            |
| Symbol:                   | NCKX2                                              |
| Synonyms:                 | NCKX2                                              |
| Mammalian Cell Selection: | Neomycin                                           |
| Vector:                   | pCMV6-Entry (PS100001)                             |
| E. coli Selection:        | Kanamycin (25 ug/mL)                               |



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**ORF Nucleotide  
Sequence:**

>RC210194 representing NM\_020344  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGC**

ATGGATCTGCAACAAAGCACCACCATCACTTCCCTAGAGAAATGGTGTGGATGAGTCACTGTCTGGCT  
 GCAGAAGACATTATAGTGTCAAGAAAAAAGTGAAGTTAATTCGAGTCTTAGGCCTTTTCATGGGTCTGGT  
 AGCCATTAGCACTGTCTCATTTTCAATCAGTGCCTTTTCTGAGACAGATACACAGAGCACAGGAGAGGCC  
 AGTGTGTAAAGTGGCCCTAGGGTAGCACAGGGTTACCATCAGAGAACTCTCTAGATTTAAATGACAAGA  
 TTCTGGATTATACTCCACAGCCACCTCTTTCTAAGGAAGGCGAGTCTGAGAATAGTACAGATCACGCCCA  
 AGGAGACTACCCGAAAGACATCTTTCCCTTGAGGAGAGAAGAAAGGTGCGATCATTCTGCATGTCATT  
 GGAATGATCTACATGTTTCATAGCCTTAGCCATTGTCTGTGATGAGTCTTTGTTCTCTTTGACTGTCA  
 TCACTGAAAAAAGTGGGCATCTCTGATGATGTGGCTGGAGCCACCTTCATGGCTGCAGGAGGGTCAGCCCC  
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 TCAGCAGTATTCAACATCCTCTTTGTTATTGGCATGTGTGCTCTGTTTTCTAGAGAAATCTTAAACCTGA  
 CATGGTGGCCGCTCTTTGAGATGTGTCTTTCTACATTGTTGACTTGATCATGCTGATCATATTTTCTCT  
 GGATAATGTATCATGTGGTGGGAAAGCTTGCTTCTCTTAACAGCTTATTTTGTATGTGGTTTTCATG  
 AAATTCACAGTCCAAGTAGAAAAATGGGTGAAGCAATGATAAACCGCAATAAGGTGCTCAAGGTGACAG  
 CACCAGAAGCCCAAGCAAGCCATCTGCAGCCAGGACAGGATGAACCAACTCTACCGGCTAAGCCGCG  
 TCTCCAGCGAGGTGGAAGCTCTGCCTCCCTCCACAACAGTCTCATGAGGAATAGCATCTTCCAACATG  
 ATACACACCCTTGACCCACTCGCCGAAGAACTTGGATCATATGAAAACTAAAAATATTATGACACAATGA  
 CTGAAGAAGGGAGGTTTCAGAGAAAAGGTTCAATTCTCCACAAGATCGCCAAGAAGAAATGTCATGTGGA  
 TGAGAACGAGAGGCAGAATGGGGCTGCCAACCAGTGGAAAAAATTGAGCTTCCAAACAGCACCAGCACA  
 GATGTTGAAATGACACCATCCAGTGATGCTTCAGAACCTGTACAAAATGGAAATCTCTCCACAACATTG  
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 CCGCAAGCAAGTCACGTTTCTGATTGTTTTCCCATAGTGTTCCTCTCTGGATTACGTTACCTGACGTT  
 CGCAAACCTTCATCGAGGAAGTTTTTCCCATCACGTTCTTTGGCTCCATTACCTGGATTGCAGTATTCT  
 CTTACTTGATGGTCTGGTGGGCGCACCAGGTTGGAGAGACAATTGGCATCAGTGAAGAGATTATGGGCCT  
 GACCATCTTGGCTGCTGGGACCTCCATCCCTGATCTTATCACCAGTGTGATAGTGGCCCGGAAGGGGTTA  
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 GGCTCCTGTACACCGTCATTACAGATTCCAGCCAGTGGCTGTCAGCAGCAATGGCCTTTTCTGTGCCAT  
 CGTCCTTCTCTTCATCATGCTGCTCTTCGTCATCTCTCTATCGCCCTCTGCAAGTGGCGAATGAACAAA  
 ATCCTGGGCTTCATCATGTTTGGCCTCTACTTTGTGTTCTGTTGGTGGTGGAGCGTTCTCTAGAAGACAGAA  
 TTCTTACATGCCCCGTCTCCATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

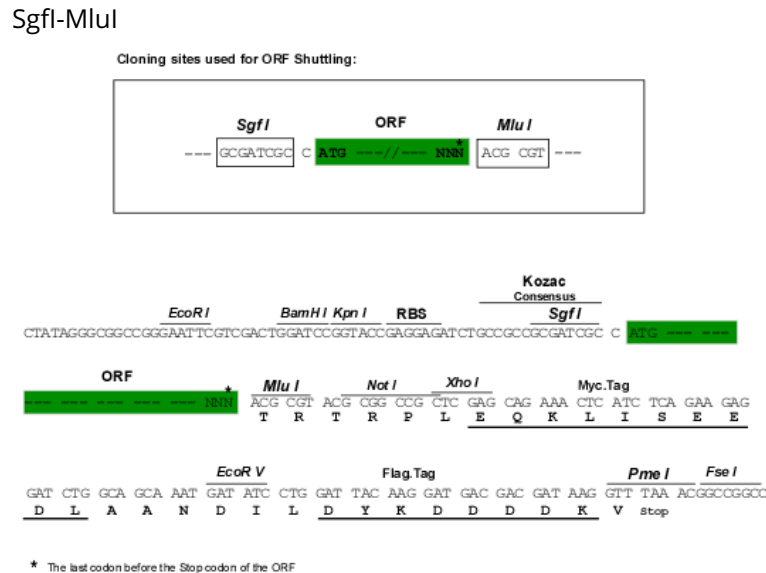
**Protein Sequence:** >RC210194 representing NM\_020344  
 Red=Cloning site Green=Tags(s)

MDLQQSTTITSLEKWCLDESLSGCRRHYSVKKKLKILRVLGLFMGLVAISTVSFSISAFSETDTQSTGEA  
 SVVSGPRVAQGYHQRTLLDLNDKILDYTPQPPLSKEGESENSTDHAQGDYPKIDIFLSLEERRKGAILHVI  
 GMIYMFIALAIVCDEFFVPSLTVITEKLGISDDVAGATFMAAGGSAPELFTSLIGVFIHNSNVGIGTIVG  
 SAVFNILFVIGMCALFSREILNLTWPLFRDVSFYIVDLIMLIIFFLDNVIMWWESLLLLTAYFCYVVF  
 KFNVQVEKWVKQMINRNKVVKVTAPEAQAKPSAARDKDEPTLPAPRLQRGGSSASLHNSLMRNSIFQLM  
 IHTLDPLAEELGSYGKLYYDTMTEEGRFREKASILHKIAKKKCHVDENERQNGAANHVEKIELPNSTST  
 DVEMTPSSDASEPVQNGNLSHNIEGAEQTADEEEDQPLSLAWPSETRKQVTFILVFPVIFPLWITLPDV  
 RKPSSRKFFPITFFGSITWIAVFSYLMVWWAHQVGETIGISEEIMGLTILAAGTSIPDLITSVIVARKGL  
 GDMAVSSSVGSNIFDITVGLPLPWLTYVIHRFPVAVSSNGLFCAIVLLFIMLLFVILSIALCKWRMNK  
 ILGFIMFGLYFVFLVSVLLEDRLITCPVSI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

**Cloning Scheme:**



**ACCN:** NM\_020344

**ORF Size:** 1983 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_020344.4](#)

**RefSeq Size:** 10857 bp

**RefSeq ORF:** 1986 bp

**Locus ID:** 25769

**UniProt ID:** [Q9UI40](#)

**Cytogenetics:** 9p22.1-p21.3

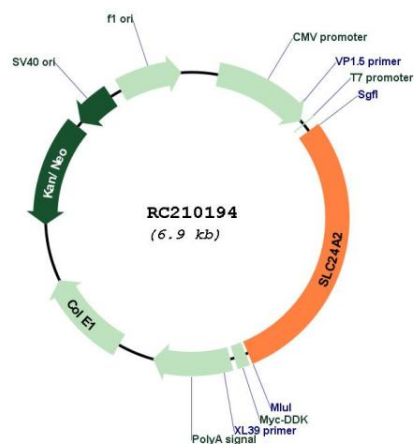
**Domains:** Na\_Ca\_Ex

**Protein Families:** Druggable Genome, Transmembrane

**MW:** 73.7 kDa

**Gene Summary:** This gene encodes a member of the calcium/cation antiporter superfamily of transport proteins. The encoded protein belongs to the SLC24 branch of exchangers, which can mediate the extrusion of one Ca<sup>2+</sup> ion and one K<sup>+</sup> ion in exchange for four Na<sup>+</sup> ions. This family member is a retinal cone/brain exchanger that can mediate a light-induced decrease in free Ca<sup>2+</sup> concentration. This protein may also play a neuroprotective role during ischemic brain injury. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2011]

## Product images:



Circular map for RC210194