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Product datasheet for RG223680

KCC2 (SLC12A5) (NM_020708) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCC2 (SLC12A5) (NM_020708) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCC2
Synonyms:	DEE34; EIEE34; EIG14; hKCC2; KCC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG223680 representing NM_020708
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTAAACAACCTGACGGACTGCGAGGACGGCGATGGGGGAGCCAACCCGGGTGATGGCAACCCCAAGG
AAAGCAGTCCCTTCATCAACAGCACCGACACAGAGAAGGGAAAGGAGTATGATGGCAAGAACATGGCCTT
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TCCTGTACGATGCTCACGGCCATCTCCATGAGTGCAATTGCAACGAATGGTGTTGTGCCTGCTGGTGGCT
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TCCTTCTTCTCCACCTGTGGGGCTGGGCTGCAGAGCCTCACGGGGGCCCCACGCCTGCTGCAGGCCATCT
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CCTGGACCGGGTGATGCTGGTCCGCGGCGGCGGCCGCGAGGTCATCACCATCTACTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG223680 representing NM_020708
Red=Cloning site Green=Tags(s)

MLNNLTDCEDGDGGANPGDGNPKESSPFINSTDTEKGKEYDGKNMALFEEEMDTSPMVSSLLSGLANYTN
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SGLIKENLWSSYLTKGVIVERSGMTSVGLADGTPIDMDHPYVFSDMTSYFTLLVGIYFPSVTGIMAGSNR
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QRSQILKQMHLTKNERERE IQSITDESRGSIRRKNPANTRLRLNVPEETAGDSEEKPEEEVQLIHDQSAP
SCPSSSPSPGEEPEGEGETDPEKVHLTWTKDKSVAEKNKGPSPVSSEGIKDFFSMKPEWENLNQSNVRRM
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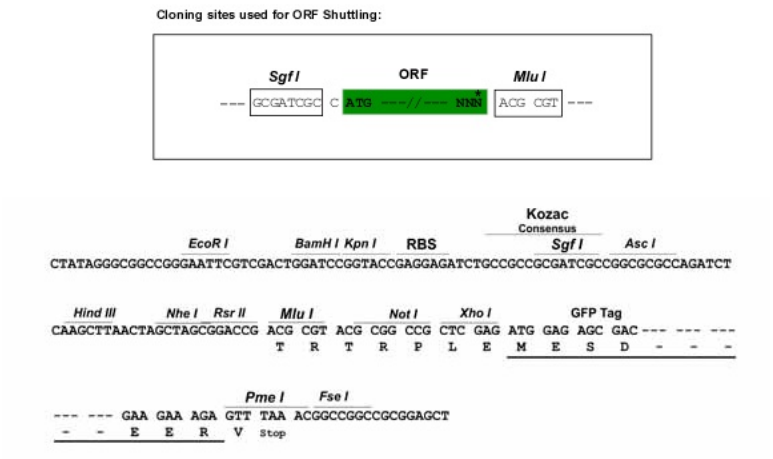
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



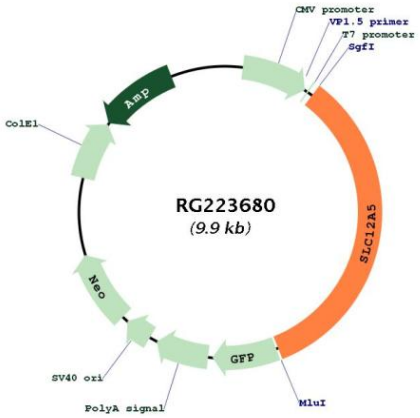
ACCN:	NM_020708
ORF Size:	3348 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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_020708.3, NP_065759.1
RefSeq Size:	6059 bp
RefSeq ORF:	3351 bp
Locus ID:	57468
UniProt ID:	Q9H2X9

Cytogenetics: 20q13.12

Protein Families: Transmembrane

Gene Summary: K-Cl cotransporters are proteins that lower intracellular chloride concentrations below the electrochemical equilibrium potential. The protein encoded by this gene is an integral membrane K-Cl cotransporter that can function in either a net efflux or influx pathway, depending on the chemical concentration gradients of potassium and chloride. The encoded protein can act as a homomultimer, or as a heteromultimer with other K-Cl cotransporters, to maintain chloride homeostasis in neurons. Alternative splicing results in two transcript variants encoding different isoforms. [provided by RefSeq, Sep 2008]

Product images:



Circular map for RG223680