

## Product datasheet for RC214820

### KCNT1 (NM\_020822) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KCNT1 (NM_020822) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNT1
Synonyms:	bA100C15.2; DEE14; EIEE14; ENFL5; KCa4.1; SLACK; Slo2.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214820 representing NM_020822 Red=Cloning site Blue=ORF Green=Tags(s)

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**Protein Sequence:** >RC214820 representing NM\_020822  
 Red=Cloning site Green=Tags(s)

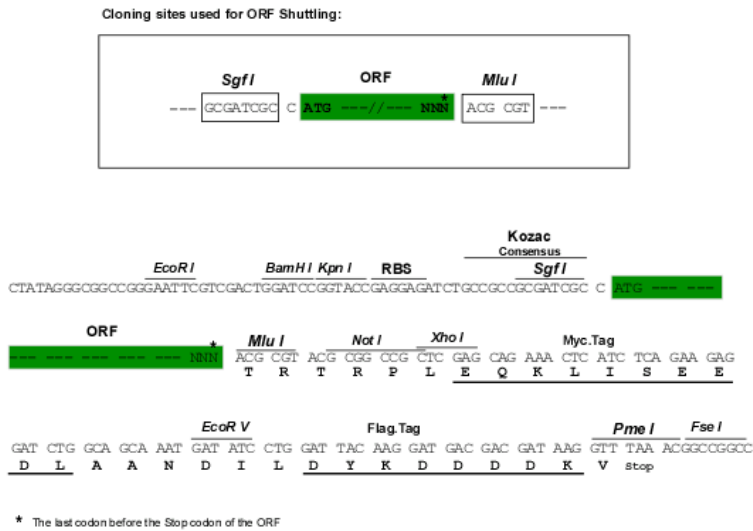
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```

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**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2723\\_e01.zip](https://cdn.origene.com/chromatograms/mg2723_e01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



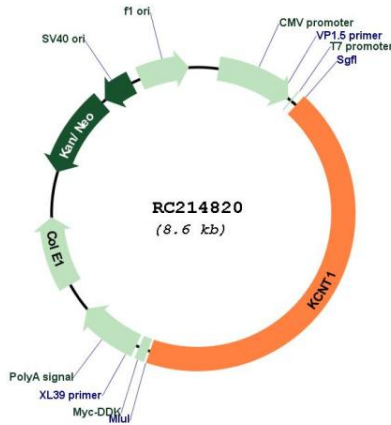
**ACCN:** NM\_020822

**ORF Size:** 3768 bp

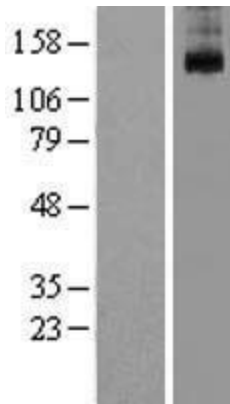
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_020822.1</a> , <a href="#">NP_065873.1</a>
<b>RefSeq Size:</b>	4823 bp
<b>RefSeq ORF:</b>	3708 bp
<b>Locus ID:</b>	57582
<b>UniProt ID:</b>	<a href="#">Q5JUK3</a>
<b>Cytogenetics:</b>	9q34.3
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane
<b>MW:</b>	139.5 kDa

**Gene Summary:**

Potassium channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. This gene encodes a sodium-activated potassium channel subunit which is thought to function in ion conductance and developmental signaling pathways. Mutations in this gene cause the early-onset epileptic disorders, malignant migrating partial seizures of infancy and autosomal dominant nocturnal frontal lobe epilepsy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2012]

**Product images:**


Circular map for RC214820



Western blot validation of overexpression lysate (Cat# [LY412293]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214820 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).