

## Product datasheet for **RG235220**

### KCNT1 (NM\_001272003) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KCNT1 (NM_001272003) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCNT1
Synonyms:	bA100C15.2; DEE14; EIEE14; ENFL5; KCa4.1; SLACK; Slo2.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG235220 representing NM_001272003 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCACTCCCTGACGGGGCGGGACCCCGGGGGCGTCTGCCGGGAGGCGCGGGCGGGGGCTACACCA  
ACCGGACCTTCGAGTTTGACGACGGCCAATGCGCCCCAGGGTCCAGGTGGAGTTCTACGTCAACGAGAA  
CACCTTCAAGGAGCGGCTCAAGCTGTTCTTCATCAAAAACCAAAGATCGAGCCTGAGGATCCGGCTGTT  
AACTTCTCCCTGAAGCTGCTCACCTGCCTGCTCTACATTGTGCGCGTCTGCTCGATGACCCGGCCCTGG  
GCATCGGATGCTGGGGTGCCTAAAGCAGAAGTACTCCTTCAATGACTCGTCCCGAGATCAACTGGG  
TCCTATTCTGTGGTGGAGAGAAAGATGACACTGTGGCGATCCAGGTACATCGTGGCCATAATAAGCTTC  
CTGGAGACGATGCTTCTCATCTACCTCAGCTACAAAGGCAACATCTGGGAGCAGATCTTCCGCGTGTCT  
TCGTCTGGAGATGATCAACTCTGCCCTTCATCATCAGATCTTCTGGCCGCCGCTGCGGAACCTGTT  
CATCCCGTCTTCTGAACTGCTGGTGGCCAAGCAGCGCTGGAAAACATGATTAATGACTTCCACCGT  
GCCATCTGCGGACACAGTCAGCCATGTTCAACCAGGTCTCATCCTCTTCTGCACCCTGCTGTGCCTCG  
TTTTACGGGGGGTTGCAGGACCTGCGGCATCCAGCACCTGGAGCGGGCGGGGAGAACCTGTCCCTCT  
GACCTCCTTCTACTTCTGCATCGTCACCTTCTCCACCGTGGGCTACGGTGACGTACGCCCCAAGATCTGG  
CCATCGCAGCTGCTGGTGGTTCATGATCTGCGTGGCCCTCGTGGTGTCTCCACTCGAGTTCGAGGAGC  
TCGTCTACCTCTGGATGGAGCGGCAGAAGTCAGGGGGCAACTACAGCCGCCACCGTGCAGACGGAGAA  
GCACGTGGTCTGTGTGTCAGCTCCCTCAAGATCGACCTTCTCATGGACTTCTGAAACGAGTTCTACGCC  
CACCCCGGCTCCAGGACTATTACGTGGTTCATCCTGTGCCCCACGGAGATGGATGTCCAGGTGCGCAGAG  
TCCTGCAGATCCCTCTGTGGTCCAGCGGGTTCATCTACCTCCAGGGCTCTGCACTCAAAGACCAGGACCT  
CATGCGAGCCAAGATGGACAATGGGGAGGCTGCTTCATCCTCAGCAGCAGGAACGAGGTGGACCGCACG  
GCTGCAGACCACCAGACCATCTGCGCGCTGGGCGTGAAGGACTTCGCCCCAACTGCCCTCTACG  
TCCAGATCCTCAAACCTGAAAACAAGTTTACGTCAAGTTTGTGACCACGTGGTGTGTGAGGAGGAGTG  
CAAGTACGCCATGCTGGCGTGAAGTGCATCTGCCGGCGACCTCCACCCTCATACCCTGCTGGTGCAC



ACGTCCCGCGGCCAGGAGGGACAGGAGTCTCCGGAGCAGTGGCAGCGCATGTATGGGCGCTGCTCCGGCA  
ACGAGGTGTACCACATCCGCATGGGTGACAGCAAGTTCTTCCGCGAGTACGAGGGCAAGAGCTTACCTA  
CGCGGCCCTTCCACGCCACAAGAAGTATGGCGTGTGCCTCATCGGGCTGAAGCGGGAGGACAACAAGAGC  
ATCCTGCTGAACCCGGGGCCCCGGCACATCCTGGCCGCTCTGACACCTGCTTCTACATCAACATCACCA  
AGGAGGAGAACTCGGCCCTCATCTTCAAGCAGGAGGAGAAGCGGAAGAAGAGGGCCTTCTCGGGCAGGG  
GCTGCACGAGGGTCCGGCCCCCTGCCCGTGCACAGCATCATCGCTCCATGGGGCAGTGGCCATGGAC  
CTGCAGGGCACAGACACCGCCCTACGCAGAGCGGCGGTGGGGGGGGGGCAGCAAGCTGGCACTGCCCA  
CGGAGAACGGCTCGGGCAGCCGGCGGCCAGCATCGCGCCCGTCTGAACTGGCCGACAGCTCAGCCCT  
GCTGCCCTGCGACCTGCTGAGCGACCAGTCGGAGGATGAGGTGACGCCGTGCGACGACGAGGGGCTCTCC  
GTGGTAGAGTATGTGAAGGGCTACCCTCCAACTCGCCCTACATCGGCAGCTCCCCAACCTGTGCCACC  
TCTGCTGTGAAAGCCCCCTTCTGCTGCTGCGGCTGGACAAGGGCTGCAAGCACAACAGCTATGAAGA  
CGCAAGGCTACGGGTTCAAGAACAAGCTGATCATCGTCTCGGCAGAGACGGCCGCAATGGGCTGTAC  
AACTTCATCGTGCCACTGCGGGCTACTACAGATCCCGAAGGAGCTGAACCCCATCGTGTCTGTCTGG  
ACAACAAGCCCGACCACCACTTCTGGAAGCCATCTGCTGCTTCCCATGGTCTACTACATGGAGGGCTC  
TGTGGACAACCTGGACAGCTGTGCAGTGTGGCATCATCTATGCGGACAACCTGGTGGTGGTGGACAAG  
GAGAGCACCATGAGCGCCGAGGAGGACTACATGGCGGACGCCAAGACCATCGTCAACGTGACAGCATGT  
TCCGGCTCTTCCCAGCCTCAGCATCACACGGAGCTCACCCACCCTTCCAACATGCGCTTCATGCAGTT  
CCGCGCCAAGGACAGCTACTCTCTGGCTCTTCCAACTAGAAAAGAGGGAGCGAGAGAATGGTCCAAC  
CTGGCCTTCATGTTCCGCTGCCGTTCCGCGCCGGCCGCTTTCAGCATCAGCATGTTGGACACACTGC  
TCTACCAGTCTTCGTGAAGGACTACATGATCACCATCACCCGGCTGCTGCTGGGCTGGACACCACGCC  
GGGCTCGGGTACCTCTGTGCCATGAAAATCACCGAGGGCGACCTGTGGATCCGCACGTACGGCCGCTC  
TTCCAGAAGCTCTGCTCCTCCAGCGCCGAGATCCCCATTGGCATCTACCGGACAGAGACCACGTTCTCT  
CCACCTCGGAGCCCCACGACCTCAGAGCCAGTCCCAGATCTCGGTGAACGTGGAGGACTGTGAGGACAC  
ACGGGAAGTGAAGGGGCCCTGGGGCTCCCGCGCTGGCACCGGAGGACAGTCCAGGGCCGCCACAGGGC  
GGCGGTGACCCCGCAGAGCACCCACTGCTACGGCGCAAGAGCCTGCAGTGGGCCCCGAGGCTGAGCCGA  
AGGCGCCAAGCAGGACGGCCGGCGGGCGCGGAGTGGATCAGCCAGCAGCGCTCAGCCTGTACCG  
GCGCTCTGAGCGCCAGGAGCTCTCCGAGCTGGTGAAGAACCGCATGAAGCACCTGGGGCTGCCACCACC  
GGCTACGAGGACGTAGCAAATTTAACAGCCAGTGTGTCATGAATCGGGTAAACCTGGGATATTTGCAAG  
ACGAGATGAACGACCACCAGAACACCCTCTCTACGTCTCATCAACCCTCCGCCGACACGAGGCTGGA  
GCCAGTGACATTGTCTATCTCATCCGCTCCGACCCCTGGCTCACGTGGCCAGCAGCTCCAGAGCCGG  
AAGAGCAGCTGCAGCCACAAGCTGTCGCTGCAACCCCGAGACTCGCGACGAGACAGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

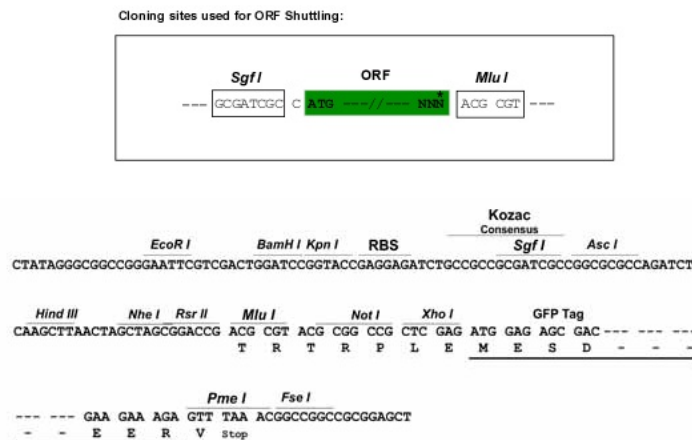
**Protein Sequence:** >RG235220 representing NM\_001272003  
 Red=Cloning site Green=Tags(s)

MPLPDGARTPGGVCREARGGGYTNRTFEFDDGQCAPRVQVEFYVNENTFKERLKLFFIKNQRSSLRIRLF  
 NFSCLKLLTCLLYIVRVLDDPALGIGCWGCPKQNYSFNDSSEINWAPILWVERKMTLWAIQVIVAIISF  
 LETMLLIYLSYKGNIEWEQIFRVSVFLEMINTLPFIITIFWPPLRNLFIPVFLNCWLAKHALENMINDFHR  
 AILRTQSAMFNQVLILFCTLLCLVFTGGCRTCGIQHLERAGENLSLLTSFYFCIVTFSTVGYGDVTPKIW  
 PSQLLVVIMICVALVVLPLQFEELVYLWMERQKSGGNYSRHRAQTEKHVVLCVSSLKIDLLMDFLNEFYA  
 HPRLQDYVVVILCPTEMDVQVRRVLQIPLWSQRVIYLGQSALKDQDLMRAKMDNGEACFILSSRNEVDRT  
 AADHQITILRAWAVKDFAPNCPLYVQILKPENKFHVKFADHVVCEEECKYAMLALNCICPATSTLITLLVH  
 TSRGQEGQESPEQWQRMYGRCSGNEVYHIRMGDSKFFREYEGKSFTYAAFHAKKYGVCLIGLKREDNKS  
 ILLNPGPRHILASDTCFYINITKEENSAFIFKQEEKRKKRAFSGQGLHEGPARLPVHSIIASMGTVAMD  
 LQGTEHRPTQSGGGGGSKLALPTENGSGRRPSIAPVLELADSSALLPCDLLSDQSEDEVTPSDDEGLS  
 VVEYVKGYPNPSYIGSSPTLCHLLPVKAPFCCLRLDKGCKHNSYEDAKAYGFKNKLIIVSAETAGNGLY  
 NFIVPLRAYYRSRKELNPIVLLLDNKPDDHFFLEAICCFPMVYYMEGSVDNLDSSLQCGIIYADNLVVVDK  
 ESTMSAEEDYMADAKTIVNVQTMFRLFPSLSITTELTHPSNMRFMQFRAKDSYSLALSKLEKRERENGSN  
 LAFMFRLPFAAGRVFSISMLDITLLYQSFVKDYMITITRLLLGLDTPGSGYLCAAMKITEGDLWIRTYGRL  
 FQKLCSSSAEIPIGIYRTESHVFTSEPHDLRAQSQISVNVEDCEDTREVKGPGWSRAGTGGSSQGRHTG  
 GGDPAEHPLLRRKSLQWARRLSRKAPKQAGRAAAAEWISQQRLSYRRSERQELSELVKNRMKHLGLPTT  
 GYEDVANLTASDVMNRVNLGYLQDEMNDHQNTLSYVLIINPPDTRLEPSDIVYLIRSDPLAHVASSSQSR  
 KSSCSHKLSSCNPETRDETQL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

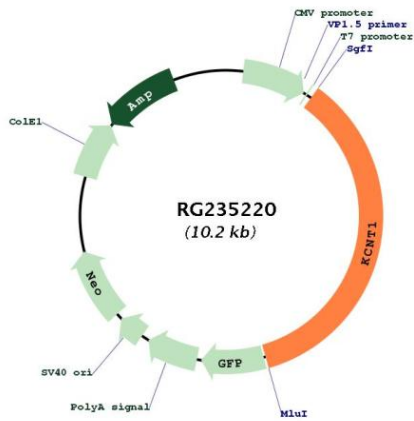


**ACCN:** NM\_001272003

**ORF Size:** 3633 bp

<b>OTI Disclaimer:</b>	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>
<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>RefSeq:</b>	<a href="#">NM_001272003.2</a>
<b>RefSeq Size:</b>	4696 bp
<b>RefSeq ORF:</b>	3636 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>Gene Summary:</b>	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 RG235220