

## Product datasheet for **RG239978**

### KCNT2 (NM\_001287819) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KCNT2 (NM_001287819) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCNT2
Synonyms:	EIEE57; KCa4.2; SLICK; SLO2.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG239978 representing NM_001287819. Blue=ORF Red=Cloning site Green=Tag(s)

```
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**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC

**Protein Sequence:**

>Peptide sequence encoded by RG239978  
 Blue=ORF Red=Cloning site Green=Tag(s)

MVDLESEVPLPPRYRFRDLLLLGDQGWQNDRRVQVEFYMENTFKERLKLFFIKNQRSSLRIRLNFSL  
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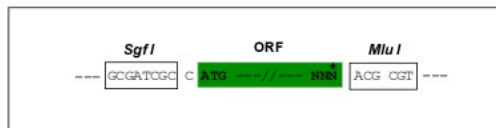
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**SVIFTDKIIRSNATVEHLHPMGDNDLDGSTRFSLRDGGYSSVVDSSHMHFKSAIHPSILQNGGPMFA**  
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Restriction Sites:

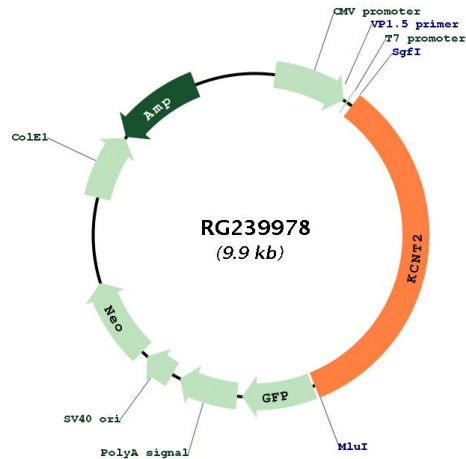
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



	<i>EcoR I</i>	<i>BamH I</i>	<i>Kpn I</i>	RBS	Kozac Consensus		<i>Sgf I</i>	<i>Asc I</i>						
	CTATAGGGCGGCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCCGCGGATCGCCGGCGGCCAGATCT													
<i>Hind III</i>	<i>Nhe I</i>	<i>Rsr II</i>	<i>Mlu I</i>	<i>Not I</i>	<i>Xho I</i>	GFP Tag								
CAAGCTTAAGTACTAGCTAGCGGACCG	ACG CGT	ACG CGG	CCG CTC	GAG ATG	GAG AGC	GAC	---	---	---					
	T	R	T	R	P	L	E	M	E	S	D	-	-	-
		<i>Pme I</i>	<i>Fse I</i>											
---	GAA GAA AGA GTT TAA	ACGGCCGGCCCGGAGCT												
-	E E R V	Stop												

**Plasmid Map:**


**ACCN:** NM\_001287819

**ORF Size:** 3333 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).

**RefSeq:** [NM\\_001287819.3](#)

**RefSeq Size:** 5903 bp

**RefSeq ORF:** 3336 bp

**Locus ID:** 343450

**UniProt ID:** [Q6UVM3](#)

**Cytogenetics:** 1q31.3

**Protein Families:** Druggable Genome, Ion Channels: Potassium, Transmembrane

**MW:** 128.1 kDa

**Gene Summary:**

Outward rectifying potassium channel. Produces rapidly activating outward rectifier K(+) currents. Activated by high intracellular sodium and chloride levels (PubMed:14684870, PubMed:16687497, PubMed:29069600). Channel activity is inhibited by ATP and by inhalation anesthetics, such as isoflurane (PubMed:16687497) (By similarity). Inhibited upon stimulation of G-protein coupled receptors, such as CHRM1 and GRM1 (PubMed:16687497). [UniProtKB/Swiss-Prot Function]