

## Product datasheet for **RG222145**

### **KCNH6 (NM\_173092) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KCNH6 (NM_173092) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCNH6
Synonyms:	ERG-2; ERG2; hERG-2; HERG2; Kv11.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG222145 representing NM\_173092  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCCGGTCCGCAGGGGCCACGTGCTCCCAAAACACTTACCTGGACACCATCATCCGCAAGTTCGAGG  
 GCCAAAGTCGGAAGTTCCTGATTGCCAATGCTCAGATGGAGAAGTGCGCCATCATTTACTGCAACGACGG  
 CTTCTGCGAACTCTTCGGCTACTCCCGAGTGGAGGTGATGCAGCAACCCTGCACCTGCGACTTCCTCACA  
 GGCCCAACACACCAAGCAGCGCGTGTCCCGCTAGCGCAGGCCCTGCTGGGGCTGAGGAGTGAAGG  
 TGGACATCTACTACCGCAAGGATGCCTCCAGCTTCGCTGCCTGGTAGATGTGGTGCCTGGAAGAA  
 CGAGGACGGGGTGTATCATGTTCACTTCAACTTCGAGGACCTGGCCAGCTCCTGGCCAAGTGCAGC  
 AGCCGACGCTTGTCCAGCGCTGTTGTCCAGAGCTTCTGGGCTCCGAGGGCTCATGGCAGGCCAG  
 GCGGACCAGGGCCAGGCACAGGCAGGGCAAGTACAGGACCATCAGCCAGATCCCACAGTTCACGCTCAA  
 CTTCTGAGGATCAACTTGGAGAAGCACCGCTCCAGCTCCACCAGGAGATTGAGATCATCGCGCCCAT  
 AAGGTGGTGGAGCGGACACAGAAGTCACTGAGAAGGTACCCAGGTCTGTCCCTGGGCGCGGATGTGC  
 TGCCGGAGTACAAGTGCAGGCGCCGCGCATCCACCGCTGGACCATCCTGCACTACAGCCCTTCAAGGC  
 CGTGTGGGACTGGCTCATCTGTGCTGGTTCATACACGGCTGTCTTACGCCCCTACTAGCCGCTTC  
 CTGCTCAGCGATCAGGACGAATCAGGCGTGGGCGCTGCAGTATACCTGCAGTCCCCTCACTGTGGTGG  
 ATCTCATCGTGGACATCATGTTCTGCTGGACATCGTCACTTCCGACACCTATGTCAACACCAA  
 TGATGAGTGGTCAAGCAGCCCGCCGCTCGCGTCCACTACTCAAGGGCTGGTTCCTATTGACATG  
 GTGGCCGCATCCCTTTCGACCTCCTGATCTTCCGCACTGGTCCGATGAGACCACAACCTGATTGGGC  
 TATTGAAGACAGCGGGTGTGCGGCTGGTGGCGTAGCACGGAAGTGGACCGTACTCTGATATGG  
 GCGGGTGTGCTTCTTGTCTCATGTGCACCTTCCGCTCATAGCGCACTGGCTGGCTGCATCTGCAGC  
 CTCACCAGCGTGGCTTCGGCAATGTCTCGCCAAACACCAACTCCGAGAAGGTCTTCTCCATCTGCGTCA  
 TGCTCATCGGCTCCCTGATGTACGCCAGCATCTTCGGGAACGTGTCCGCGATCATCCAGCGCTGTACTC  
 GGGCACCGCGCTACCACACGCAGATGCTGCGTGTCAAGGAGTTCATCCGCTTCCACCAGATCCCCAAC  
 CCACTGCGCCAGCGCTGGAGGAGTATTCAGCACGCTGGTCTACACCAATGGCATTGACATGAACG  
 CGGTGCTGAAGGGCTTCCCGAGTGCCTGCAGGCTGACATCTGCCTGCACCTGCACCGCGCACTGCTGCA  
 GCACTGCCAGCTTTCAGCGCGCCGGCAAGGGTGCCTGCGCGCTAGCCGTCAAGTTCAGACCACC  
 CACGCGCCGCTGGGGACAGCTGGTGCACCTCGGCGAGTGTCTCCACCCTTACTTCTCTCCCGAG  
 GCTCCATCGAGATCCTGCGCGACGAGCTGGTCTGGCCATCCTAGGAAAGAAATGACATCTTTGGGGAACC  
 CGTCAGCTCCATGCCAGCCAGGCAAGTCCAGTGCAGACGTGCGGGCTCTGACCTACTGCGACCTGCAC  
 AAGATCCAGCGGGCAGATCTGCTGGAGGTGCTGGACATGTACCCGGCTTTCGCGAGAGCTTCTGGAGTA  
 AGCTGGAGGTACCTTCAACCTGCGGGACGCAGCCGGGGTCTCCACTCATCCCCCGACAGGCTCCTGG  
 CAGCCAAGACCACCAAGTTCCTTCTCAGTGACAACAGTCAAGTGCAGCCCTCCCCTGAGCATCTCA  
 GATGATCTGGCCTCTGGCCTGAGCTACTGCAGGAAATGCCCAAGGCACAGCCCCAAAGCCCTCAGG  
 AAGACCCAGATTGCTGGCCTCTGAAGCTGGGCTCCAGGCTAGAGCAGCTCCAGGCCAGATGAACAGGCT  
 GGAGTCCCGGTGTCTCAGACCTCAGCCGATCTTGCAGTCTCCAGAAGCCATGCCCGAGGGCCAC  
 GCCAGTACATTCTGGAAGCCCTGCCTCCAATGACCTGGCCTTGGTTCCTATAGCCTCGGAGACGACGA  
 GTCCAGGGCCAGGCTGCCCCAGGGCTTCTGCTCCTGCACAGACCCCAAGCTATGGAGACTTGGATGA  
 CTGTAGTCCAAAGCACAGGAACCTCCTCCCCAGGATGCCTCACCTGGCTGTGGCAACGGACAAAACCTCTG  
 GCACCATCCTCAGAACAGGAACAGCCTGAGGGGCTCTGGCCACCCTAGCCTCACCTCTACATCCCCTGG  
 AAGTACAAGGACTCATCTGTGGTCCCTGCTTCTCCTCCCTGAAACACCTGGCTCTGTTCCCAAGCA  
 GCTGGACTTCCAGAGACATGGCTCAGATCTGGATTTGCAGGGAGTTGGGGCCAC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:** >RG222145 representing NM\_173092  
 Red=Cloning site Green=Tags(s)

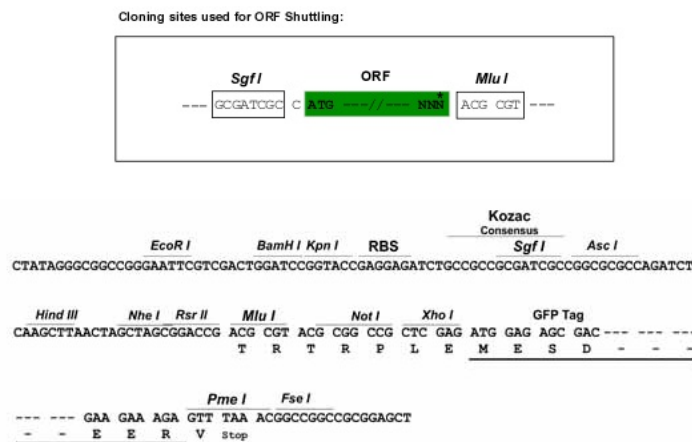
MPVRRGHVAPQNTYLDTIIRKFEQSRKFLIANAQMENCAIICYNDGFCELFGYSRVEVMQQPCTCDFLT  
 GPNTSSAVSRLAQALLGAECKVDILYRKDASSFRCLVDVVPVKNEGAVIMFILNFEDLAQLLAKCS  
 SRSLSQRLLSQSFLGSEGSHRPGGPGPGTGRGKYRTISQIPQFTLNFEVFNLEKHRSSSTTEIEIIAPH  
 KVERTQNVTEKVTQVLSL GADVLPYKQLQAPRIHRWTILHYSFPKAVWDWLILLVVIYTAVFTPYSAAF  
 LLSQDESRRGACSYTCSPLTVVDLIVDIMFVVDIVINFRTTYVNTNDEVVSHPRRIAVHYFKGWFLIDM  
 VAAIPFDLLIFRTGSEDETTTLIGLLKTARLLRLVRVARKLDRYSEYGA AVL FLLMCTFALIAHWLACICS  
 LTSVGFNGVSPNTNSEKVF SICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVKEFIRFHQIPN  
 PLRQRLEEFQHAWSYTNIDMNAVLKGFPECLQADICLHLHRALLQHCPAFSGAGKGLRALAVKFKTT  
 HAPPGDTLVHLGDVLTLYFISRGSEILRDDVVVAILGKNDIFGEPVSLHAQPGKSSADVRALTYCDLH  
 KIQRADLLEVLDMYPAFAESFWSKLEVTFNLRDAAGLHSSPRQAPGSQDHQGFFLSDNQSDAAPPLSIS  
 DASGLWPELLQEMPPRHSPOSPQEDPDCWPLKLSRLEQLQAQMNRLSRVSSDLSRILQLLQKMPQGH  
 ASYILEAPASNDLALVPIASETTSPGPRLPQGFLLPPAQTTPSYGDLDDCSPKHRNSSPRMPLAVATDKTL  
 APSSSEQPEGLWPPLASPLHPLEVQGLICGPCFSSLEPHLGSVPKQLDFQRHGSDPGFAGSWG H

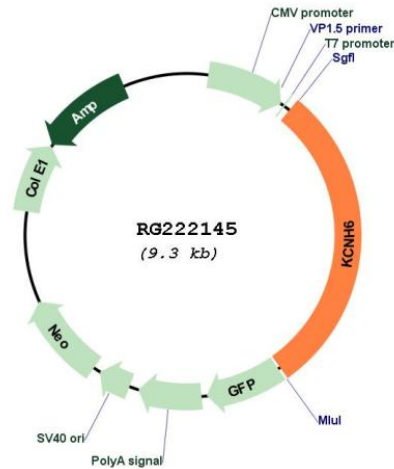
TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_173092

**ORF Size:** 2715 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\\_173092.3](#)

**RefSeq Size:** 3017 bp

**RefSeq ORF:** 2718 bp

**Locus ID:** 81033

**UniProt ID:** [Q9H252](#)

**Cytogenetics:** 17q23.3

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

**Gene Summary:** Voltage-gated potassium (Kv) 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 member of the potassium channel, voltage-gated, subfamily H. This member is a pore-forming (alpha) subunit. Alternative splicing results in multiple transcript variants that encode different isoforms. [provided by RefSeq, Jul 2013]