

Product datasheet for **RG220205**

Kv1.4 (KCNA4) (NM_002233) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv1.4 (KCNA4) (NM_002233) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kv1.4
Synonyms:	HBK4; HK1; HPCN2; HUKII; KCNA4L; KCNA8; KV1.4; MCIDDS; PCN2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG220205 representing NM_002233
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

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 GGAAAGGGGGATGACAGTGTGACAGATAAAAACAACCTGTTCTAATGCAAAGGCTGTGGAGACTGATGTG

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG220205 representing NM_002233
 Red=Cloning site Green=Tags(s)

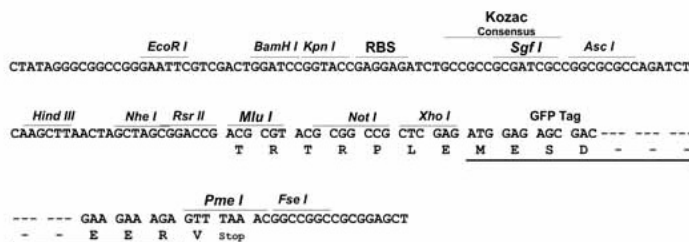
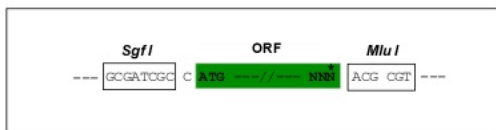
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 SNFNFYFHRETENEEQTLTQNAVSCPYPNSLLKKFRSSTSSSLGDKSEYLEMEEGVKESLCAKEEKQ
 GKGDSETDKNNCSNAKAVETDV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_002233

ORF Size: 1959 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_002233.4](#)

RefSeq Size: 3613 bp

RefSeq ORF: 1962 bp

Locus ID: 3739

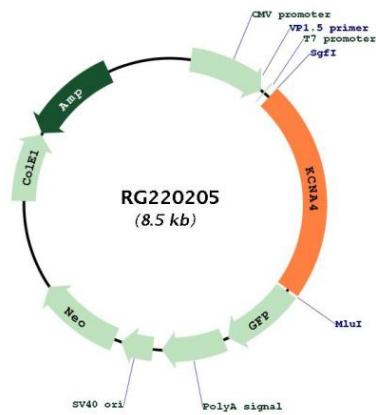
UniProt ID: [P22459](#)

Cytogenetics: 11p14.1

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

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. Four sequence-related potassium channel genes - shaker, shaw, shab, and shal - have been identified in *Drosophila*, and each has been shown to have human homolog(s). This gene encodes a member of the potassium channel, voltage-gated, shaker-related subfamily. This member contains six membrane-spanning domains with a shaker-type repeat in the fourth segment. It belongs to the A-type potassium current class, the members of which may be important in the regulation of the fast repolarizing phase of action potentials in heart and thus may influence the duration of cardiac action potential.[provided by RefSeq, Mar 2011]

Product images:



Circular map for RG220205