

## Product datasheet for **MG218493**

### **Kcna7 (NM\_010596) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kcna7 (NM_010596) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kcna7
Synonyms:	Kv1.7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG218493 representing NM\_010596  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTATTTTTACCCGCCGACACCCGACACCCGACTGGGGTGGCTGCGGGCTCGGGGCCACACGTCCTGTT  
 CACCGGTGCGCCGGGCTGTGCGCGCCATGGAGCCACGGTGCCCGCGCCCTGCGGCTGCTGCGAGCGGCT  
 GGTGCTCAACGTGGCCGGTTGCGCTTCGAGACCCGCGCGCACGCTCGGCCGCTTCCCGACACGCTG  
 CTGGGGGACCCGGTGCGCCGAGCCGCTTCTACGACGGCGCGCGCGAGTATTTCTCGACCGACACC  
 GGCCAGCTTCGATGCGGTGCTCTACTACTACCAGTCGGCGGCCGGCTGAGACGGCCGGCGCACGTGCC  
 CCTCGACGCTTCTCTGGAGGAGGTGCTTCTACGGGTGGGCGCGCGCGCTGGCGGGCTGCGGGAG  
 GACGAGGGCTGCGCGGTGCCCGCGAGCGGCCGCTGCCCGCGCGCCTTTGCGCGTCAGCTCTGGCTGC  
 TCTTCGAATTTCTGAGAGCTCGCAGGCTGCGCGCTGCTCGCCGTGGTCTCCGTAATCGTCATCCTGGT  
 CTCATCGTGGTCTTTGCTCGAGACTGCCAGACTTCGCGACGACCGCGATGACCCGGGGCTCGCG  
 CCGTAGCCGCTGCTACTGGCCGTTCTCGCCGACTGAATGGTCCAGTCCCATGCCAGGAGCCCTC  
 CCCGACAGCCCTCAACGATCCATTCTTTGGTGGAGACCCTGTGTATCTGCTGTTCTCCTTTGAGCT  
 GCTGGTGCCTGCTGGTGGCCTGCCCTAGCAAAGCTGTGTTCTTCAAGAATGTGATGAACCTAATTGACTTC  
 GTGGCCATCCTGCCTTACTTCGTGGCCCTGGGCACGGAGTTAGCCCGGCAGCGGGGTGTGGGCCAGCCGG  
 CTATGTCCTGGCCATCCTAAGGGTCATCCGATTGGTGCCTGCTTCCGCATCTTCAAGCTCTCCAGGCA  
 TTCGAAGGGTCTACAGATCTTGGGTGAGACTGCGGGCTCCATGCGTGAGCTAGGTCTCCTCATCTTC  
 TTCCTCTCATTGGCGTGGTCTCTTTCCAGCGCAGTCTACTTTGCTGAAGTGGACCGGGTGGACACCC  
 ATTTACACGACATCCCGGAGTCCCTTTGGTGGCAGTGGTCACCATGACCAGGTTGGCTATGGGGACCC  
 GGCACCCGTACCGTGGGTGGCAAGATCGTGGGCTCTCTGTGTGCCATTGCAGGTGTGCTACCATCTCT  
 CTGCCTGTGCCTGTCAATTGTCTCTAACTTTAGCTACTTTTACCACCGGGAGACAGAGGGCAAGAGGCAG  
 GGATGTACAGCCATGTGGACACACAGCCCTGCGGTACCCTGGAGGGCAAGGCTAATGGGGGGCTGGTGA  
 CTCTGAGGTGCCTGAACTCCTCCACCACTCTGGCCCCCTGCAGGGAAACACATGGTGACTGAGGTG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG218493 representing NM\_010596  
 Red=Cloning site Green=Tags(s)

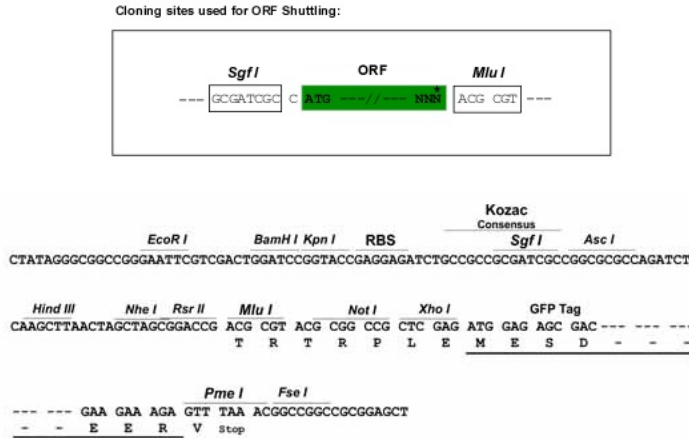
MLFLPADTGHTGVAAASGPHVRSVAVRAMEPRCPCCERLVLNVAGLRFETRARTLGRFPDTL  
 LGDPVRRSRFYDGRREYFFDRHRPSFDAVLYYQSGGRLRRPAHVPLDVFLEEVSYGLGAAALARLRE  
 DEGCAVPPERPLPRRAFARQLWLLFEFPESSQAARVLAVVSVLVILVSIIVFCLTELPDFRDRDDPGLA  
 PVAAATGPFLARLNGSSPMPGAPPRQPFNDPFFVETLVCWFSFELLVRLVACPSKAVFFKNVMNLIDF  
 VAILPYFVALGTELARQGVGQPAMSLAILRVIRLVRVFRIFKLSRHSKGLQILGQTLRASMRELGLLIF  
 FLFIGVVLFSAYVFAEVDVDRDTHFTSIPESFWAVVTMTTVGYGDMAPVTVGGKIVGSLCAIAGVLTIS  
 LPVPVIVSNFSYFYHRETEGEEAGMYSHVDTQPCGTLEGKANGGLVDSEVPELLPPLWPPAGKHMVTEV

**TRTRPLE** - GFP Tag - V

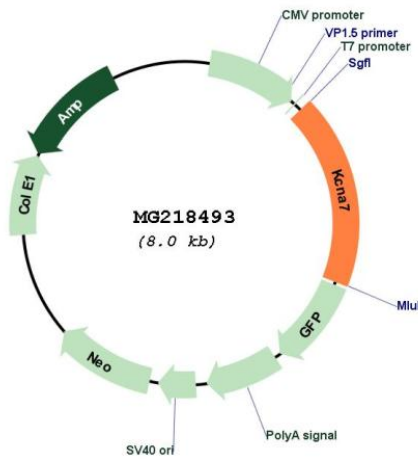
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_010596

ORF Size: 1467 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\\_010596.2](#), [NP\\_034726.2](#)

**RefSeq Size:** 3494 bp

**RefSeq ORF:** 1470 bp

**Locus ID:** 16495

**UniProt ID:** [Q17ST2](#)

**Cytogenetics:** 7 29.3 cM

**Gene Summary:** Mediates the voltage-dependent potassium ion permeability of excitable membranes. Assuming opened or closed conformations in response to the voltage difference across the membrane, the protein forms a potassium-selective channel through which potassium ions may pass in accordance with their electrochemical gradient. Channels formed by isoform 1 inactivate faster than channels formed by isoform 2.[UniProtKB/Swiss-Prot Function]