

## Product datasheet for **RG222603**

### **LRRC8C (NM\_032270) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	LRRC8C (NM_032270) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LRRC8C
Synonyms:	AD158; FAD158
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG222603 representing NM\_032270  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGATTCCCGTGACAGAATTCGGCAGTCTCTGAGCAGCAGCCTGCCTCCGAGTGCTGAAGCCATGGT  
 GGGATGTGTTTACCGATTACCTCTCAGTAGCCATGCTCATGATCGGCGTGTGGATGTACTTTACAGGT  
 CATGCAAGACAAGATAATCTGCCTTCCGAAAAGAGTGCAGCCTGCTCAGAACCCTCTTCCCTTTTGAAT  
 GTCTCTCAAGCAGTTGCCAGTACCCTCCACTGCCTCCACCTAAACCATCTCTGCTAACCCCATCACTG  
 TGGAAATGAAAGGCTGAAGACAGATTTGGACCTCAGCAGTACAGCTTTATAAATCAGATGTGTTATGA  
 GCGAGCCCTCCACTGGTATGCCAAGTATTTCCCTTACCTTGTCTCATCCATACCCTGGTCTTTATGCTC  
 TGCAGTAACTTTGGTTCAAATTCCTGGTCCAGCTCCAAAATAGAACATTTTCTCCATTCTGGGGA  
 AGTGTGTTTACTCTCCTTGGACCACACGGGCTTTATCTGAAGTGTCTGGGAGGACTCAGAAGAAAAGGA  
 CAACAGGAAGAACAACATGAACAGGTCCAACACCATCCAATCTGGTCCAGAAGGCAGCCTGGTCAACTCT  
 CAGTCTTTAAAGTCCATTCTGAGAAGTTGTAGTTGATAAATCCACTGCAGGGGCTCTGGATAAAAAGG  
 AAGGTGAGCAGGCTAAGGCCATTTTGAAGAAGTGAAGAAGTTCAGGCTGCATGTGGAAGAAGGTGATAT  
 TCTATATGCCATGTATGTTCCGACAGTGTACTTAAAGTTATCAAATTCCTAATCATATTGCATATAAT  
 AGTGCTCTGGTTTCCAAGTCCAGTTTACAGTGGACTGTAATGTGGACATTCAGGACATGACTGGATATA  
 AAACTTTTCTTGAATCATACCATGGCACACTTGTCTCAAACCTGTCTTTTGTCTATCTGTGCTTTGT  
 TAGTATCTATGGATTGACGTGCCTTTATACCTTACTGGCTGTCTACCGTTCTCTACGGGAATATTCC  
 TTTGAGTATGTCGGTCCAGGAGACTGGAATGATGATATCCAGATGTGAAAAATGACTTTGCTTTTATGC  
 TTCATATGATAGATCAGTATGACCTCTCTATTCCAAGAGATTTGCAGTGTCTGTCTGAAGTCAAGTGA  
 AAACAAAATTAAGCAGCTGAACCTTAAATAACGAATGGACTCCTGATAAACTGAGGCAGAAGCTACAGACA  
 AATGCCATAATCGACTGGAATTCCTCTTATCATGCTCTCTGGCCTTCCAGACTGTTTTTGAATCA  
 CAGAGTTGCAATCTTAAAACCTGAAATCATTAAAGACGTAATGATACCAGCCACCATTCACAGCTAGA  
 CAATCTTCAAGAGCTCTCTGACCCAGTGTCTGTCAAATCCACAGTGCAGGCGCTCTCTTTCTGAAAG  
 GAAAACCTCAAGGTCTTGAGCGTCAAGTTTGTGACATGAGGGAACCTCCCCCTGGATGTATGGGCTCC  
 GAAATCTGGAAGAGCTGTACCTAGTTGGCTCTCTAAGTCATGATATTTCCAGAAATGTCACCCTTGAGTC  
 TCTGCGGATCTCAAAGCCTTAAAATTTCTCTATCAAAGCAACGTTTCCAAAATCCCTCAGGCAGTG  
 GTTGATGTTTCCAGCCATCTCCAGAAGATGTGCATACATAATGATGGCACCAAGCTGGTGTGCTCAACA  
 ACTTAAAGAAGATGACCAATCTGACAGAGCTGGAGCTGGTCCACTGTGACCTGGAGCGTATTCTCATGC  
 TGTGTTACGCCTACTCAGCCTCCAGGAATTTGGACTGAAGGAAAAACAATCTGAAATCTATAGAAGAAATC  
 GTTAGCTTTCAGCACTTAAAGAAAGTTGACAGTGTAAAACCTGTGGCATAACAGCATCACCTACATCCCAG  
 AGCATATAAGAAAACCTACCAGCCTGGAACGCCTGTCTTTAGTCACAATAAAAATAGAGGTGCTGCCTTC  
 CCACCTCTTCTATGCAACAAGATCCGATACTTGGACTTATCGTACAATGACATTCGATTTATCCCCCT  
 GAAATTTGAGTTCTACAAAGTTTACAGTATTTTCCATCATGTAACAAAGTGGAAAGCCTTCCAGATG  
 AACTCTACTTCTGCAAGAACTTAAAACCTGAAGATTGGAAAAACAGCCTATCTGTACTTTACCCGAA  
 AATTGGAATTTGCTATTTCTTTCTACTTAGATGTAAGGTAATCACTTTGAAATCCTCCCTCCTGAA  
 CTGGGTGACTGTCGGGCTCTGAAGCAGCTGTTTGTAGTTGTAAGATGCTCTGTTTGAACCTCTGCCTT  
 CTGACGTCGGGAGCAAATGAAAACAGAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG222603 representing NM\_032270  
Red=Cloning site Green=Tags(s)

MIPVTEFRQFSEQQPAFRVLKPWWDFVTDYLSVAMLMIGVFGCTLQVMQDKIICLPKRVQPAQNHSSLN  
VSQAVASTTPLPPPSPANPITVEMKGLKTDLDLQQYSFINQMCYERALHWYAKYFPYLVIHTLVFML  
CSNFWKFPGSSSKIEHFISILGKCFDSPWTRALSEVSGEDSEEDNRKNNMNRSNTIQSGPEGLVNS  
QSLKSIPEKFVVDKSTAGALDKKEGEQAKALFEKVKKFRHLHVEEGDILYAMYVRQTVLKVIFLIIAYN  
SALVSKVQFTVDCNVDIQDMTGYNFSCNHTMAHLFSKLSFCYLCFVSIYGLTCLYTYWLFYRSLREYS  
FEYVRQETGIDDIPDVKNDFAFMLHMIDQYDPLYSKRFAVFLSEVSENKQKLNLNNEWTPDKLRQKLQT  
NAHRLELPLIMLSGLPDTVFEITELQSLKLEIKNVMIPATIAQLDNLQELSLHQCSVKIHSAAALSFLK  
ENLKVLSVKFDDMRELPWMYGLRNLEELYLVGSLSHDISRNVTLSELRDLKSLKILSIKSNVSKIPQAV  
VDVSSHLQKMCIHNDGKLVMLNLLKMTNLTELELVHCDLERIPHAVFSLLSLQELDLKENNLKSIIEE  
VSFQHLRKLTVLKLWHNSITYIPEHIKLTSLERLSFSHNKIEVLPShlFLCNKIRYLDLSYNDIRFIPP  
EIGVLQSLQYFSITCNKVESLPDELYFCKKLTLLKIGKNSLSVLSPKIGNLLFLSYLDVKGNHFEILPPE  
LGDCRALKRAGLVVEDALFETLPSDVREQMKTE

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



*EcoRI*
*BamHI* *KpnI*
RBS
Kozac Consensus
*SgfI*
*AscI*

CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGGCCAGATCT

*HindIII*
*NheI* *RsrII*
*MluI*
*NotI*
*XhoI*
GFP Tag

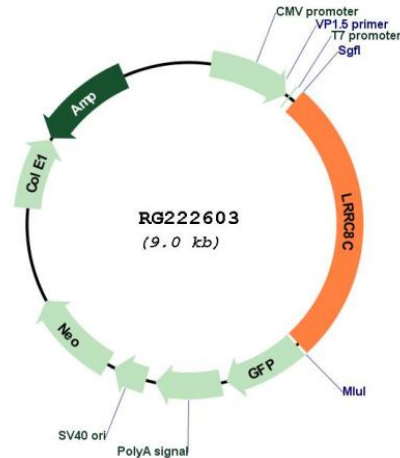
CAAGCTTAACTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---

T R T R P L E
M E S D - - -

*PmeI*
*FseI*

--- --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT

- - - E E R V Stop

**Plasmid Map:**


**ACCN:** NM\_032270

**ORF Size:** 2409 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\\_032270.4](#)

**RefSeq Size:** 2575 bp

**RefSeq ORF:** 2412 bp

**Locus ID:** 84230

**UniProt ID:** [Q8TDW0](#)

**Cytogenetics:** 1p22.2

**Domains:** LRR, LRR\_TYP, LRR\_PS

**Protein Families:** Transmembrane

**Gene Summary:** Non-essential component of the volume-regulated anion channel (VRAC, also named VSOAC channel), an anion channel required to maintain a constant cell volume in response to extracellular or intracellular osmotic changes. The VRAC channel conducts iodide better than chloride and can also conduct organic osmolytes like taurine. Plays a redundant role in the efflux of amino acids, such as aspartate and glutamate, in response to osmotic stress. Channel activity requires LRRC8A plus at least one other family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E); channel characteristics depend on the precise subunit composition. [UniProtKB/Swiss-Prot Function]