

## Product datasheet for **RG239867**

### **TMEM16B (ANO2) (NM\_001278597) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TMEM16B (ANO2) (NM_001278597) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ANO2
Synonyms:	C12orf3; TMEM16B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide  
Sequence:**

>RG239867 representing NM\_001278597.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```

GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGCCTGAAGATATACCCCTGCTCCCTGGCTCCCACGCCGGCTGAGCCCTCAGGCAGGGTCCAGAGGG
GGCCAGGGCCCCAAACATGGACAGCAGTGTCTCAAGATGCCAGGTCCCCGGGCCAGGTCTGCAGGGC
GGTTCCAACAGAGATCCTGGCCAGCCCTGCGGTGGAGAGACACCCGAGCAGCTCTGTCATCAACAAC
TATCTGGATGCCAATGAGCCTGTGTCTTGGAGGCCCGTCTTAGCCGCATGCACTTCCATGACAGTCAG
AGGAAGGTCGACTATGTACTTGCCTACCACTACCGGAAACGCGGGGTGCACCTGGCCCAAGGCTTCCCT
GGCCACTCGTGGCTATCGTCTCCAATGGGGAGACAGGCAAGGAGCCTCATGCTGGGGGCCAGGTGAC
ATTGAGCTGGGACCGCTCGATGCCCTGGAGGAGGAGGAAGGAGCAGCGGGAGGAATTTGAGCACAAT
CTGATGGAGGCTGGACTGGAGCTTGAGAAGGACTTGGAGAATAAAAGCCAGGGATCCATCTTTGCCGG
ATACACGCCCCGTGGCAGGTGCTGGCCAGAGAGGCAGAATTCTTGAAGATCAAAGTTCCTACCAAGAAA
GAGATGTACGAGATCAAAGCAGGAGGCAGCATTGCAAAGAAGTTCAGCGCGGCTCTGCAGAAGCTGAGC
TCGCACCTGCAGCCCCGAGTTCAGAACACAGCAACAACAAGATGAAAAACCTCTCTACCCATTCTCC
AGGGAGAAGATGTACCTGTACAACATCCAGGAAAAGGACACCTTCTTTGATAATGCCACCCGAGCCGC
ATTGTGCACGAGATCCTGAAGCGCACAGCCTGCTCCCAGCCAACAACACGATGGGTATTAACCTCTCTG
ATCGCAACAATATCTATGAGGCTGCCTACCCTTTCATGACGGTGAATACGATAGTCCAGAGGACGAT
ATGAATGACAGGAAGCTGCTATATCAAGAAATGGGCGCGCTATGGAGTGTCTATAAGTTCACACCTATT
GACCTCATCAGAAAGTATTTGGAGAAAAAATGGACTGTATTTGCCTGGCTGGGATTATATACATCA
TTCCTATCCCATCTTCTGTAATTGGAGTGATTGTGTTTCTTATGGATGTGCAACAATGAAGAAGAT
ATCCCAGCAGAGAGATGTGTACCAGCAGAATGCCTTACCATGTGTCCCTGTGTGACAAGTCCGTG
GATTACTGGAACCTCAGCTCAGCCTGTGGGACCGCGAGGCCAGCCACCTGTTTGACAACCTGCCACC
GTCTTCTCTCTATCTTATGGCTCTGTGGGCTACCATGTTCTGAAAACTGGAAGAGGCTACAGATG
CGACTGGGCTACTTTGGGACCTGACTGGCATAGAAGAGGAAGAAGAACGTGCCAGGAACATTCCAGG
CCTGAGTATGAAACCAAAGTTCGAGAGAAAAATGCTAAAGGAGAGCAACCAGTCTGCTGTCCAGAAATTG
GAAACAAACACGACGGAGTGTGGCGATGAGGATGATGAAGATAAACTGACCTGGAAGGATCGTTTCCCA
GGTTACCTGATGAACTTTGCCTCCATCTTATTCATGATTGCCCTGACATTCTCAATCGTCTTTGGGGTG
ATAGTGTATCGAATAACAACTGCAGCCGCTCTGTCTCTCAATAAGGCTACACGCTCCAATGTCGGGTG
ACAGTGACAGCAACAGCAGTCATCATCAACCTCGTGGTCACTCATCTCCAGCAGATCTACGGCGCT
GTGGCCAAGTGGCTCACCAAAATTGAGGTTCCGAAAACAGAACAGACTTTTGAAGAGCGCTGATCCTC
AAAGCTTTCTTGCTCAAGTTTGTCAATGCCTACTCCCCATCTTCTATGTGGCCTTTTTCAAAGGGAGG
TTTGTGGGACGGCCTGGAAGCTACGTCTATGTATTGATGGTTACCGCATGGAAGAGTGTGCTCCAGGG
GGCTGTCTCATGGAGCTCTGCATTACGCTCAGCATCATCATGTTGGGGAAGCAGTTGATCCAGAACAAC
ATCTTTGAGATTGGAGTCCCGAAGCTAAAGAACTATTTGAAAGCTGAAAGATGAGACCGAAGCTGGA
GAAACTGACTCTGCCATTGAAACATCCAGAGCAGTGGGACCTAGACTACAGCTTGAACCATACACA
GGACTGACTCCGGAGTACATGGAATGATCATCCAGTTTGGTTTTGTACCCTCTTCGTGGCCTCCTTT
CCCCTGGCACCTGTGTTTGCCCTCCTCAACAACGTCATTGAAGTGGGCTCGATGCAAGAAGTTTGT
ACAGAGCTGAGACGGCCGGATGCTGTAAGAACCAAGATATCGAATCTGGTTTGACATTCTCTGGA
ATTGGCAAGTTCTCTGTTATCAGCAACGCTTTTGTATTGCGATCACCTCCGACTTTATCCCCCGCTG
GTGACCAGTACTCCTACAGTCACAATGGGACTCTGCACGGCTTTGTCAACCACACCCTCTCCTTTTTC
AACGTCAGCCAGCTGAAGGAGGGGACGCAGCCAGAAAACCTCACAGTTTGACCAGGAGGTTGAGTTCTGC
AGGTTTAAGGATTACCGAGAGCCGCATGGGCCCGAACCTTATGAGTTTTCGAAACAGTACTGGTTT
ATTCTGTCGCCCCGTCTGGCTTTTGTATAATCTCCAGAACCTCGTATGTTCTGAGCGTCTCTGTCG
GACTGGATGATTCCAGACATCCCCACGGACATCAGCGACCAGATCAAGAAAGAGAAGAGCTTATTAGTG
GATTTCTTCTGAAAGAGGAGCATGAGAAGCTCAAGCTGATGGATGAGCCGGCTCTGAGGAGCCCAGGA
GGTGGGGATCGAAGCAGGAGCCGGCAGCCAGCTCAGCACCTTCAGGCCAAGCCAGCTGGGCAGCATG
ATGTCGTCAGGCTCTCAGCACACCAATGTG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
  
```

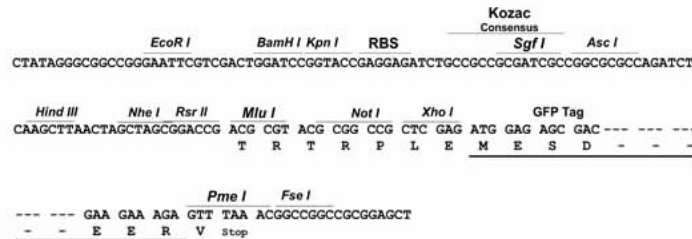
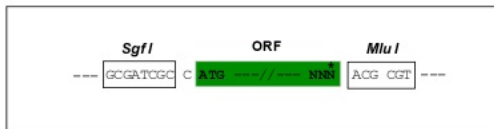
**Protein Sequence:** >Peptide sequence encoded by RG239867  
 Blue=ORF Red=Cloning site Green=Tag(s)

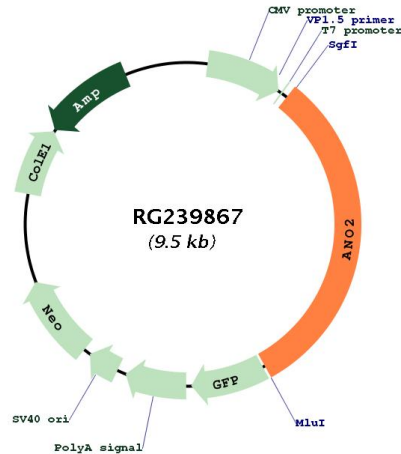
MPEDIPLLPSPRRLSPQAGSRGGQPKHGQCLKMPGPRAPGLQGGSNRDPGQPCGGESTRSSVINN  
 YLDANEPVSL EARL SRMHFHDSQRKVDYVLAHYRKRGVHLAQGFPGHSLAIVSNGETGKEPHAGGPGD  
 IELGPLDALEEEERKEQREEFEHNLMEAGLELEKDLENKSQGSIFVRIHAPWQVLAAREAFLKIKVPTKK  
 EMYEIKAGGSI AKKF SAALQKLSSHLPQRPVEHSNNKMKNLSYFPFSREKMYL YNIQEKTDFDNATRSR  
 IVHEILKRTACSRANNTMGINSLIANNIYEAAYPLHDGEYD SPEDDMNDRKLLYQEWARYGVFYKFQPI  
 DLIRKYFGEKIGLYFAWLGLYTSFLIPSSVIGIVFLYGCATIEEDIPSREMCDQQAFTMCPLCDKSC  
 DYWNLSSACGTAQASHLFDNPATVFFSIFMALWATMFLENWKRLQMRG YFWDLTGIEEEEEERAQEHSR  
 PEYETKVREKMLKESNQSAVQKLETNTECGDEDEDKLTWKDRFPGYLMNFASILFMIALTFSIVFGV  
 IVYRITTAALSLNKATRSNVRVTATAVIINLVVILILDEIYGAVAKWLTKEIVPKTEQTFEERLIL  
 KAFLLKFVNAYSPIFYVAFFKGRFVGRPGSYVYVFDGYRMEECAPGGCLMELCIQLSIIMLGKQLIQNN  
 IFEIGVPLKLLFRKLKDETEAGETDSAHSKHPEQWDL DYSLEPYTGLTPEYMEMIIQFGVTLFVASF  
 PLAPV FALLNNVIEVRLDAKKFVTELRRPDAVRTKDIGIWF DILSGIGKFSVISNAFVIAITSDFI PRL  
 VYQYSYSHNGTLHGFVNHTLSFFNVSQLKEGTQPENSQFDQEVQFCRFKDYREPPWAPNPYEF SKQYWF  
 ILSARLAFV IIFQNL VMFLSVLVDWMPID IPTDISDQIKKEKSLLVDFFLKEEHEKLLMDEPALRSPG  
 GGDRSRRAASSAPSGSQLGSMSSSGSQHTNV  
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV  
 MGYGFYHFGTYP SGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_001278597

**ORF Size:** 2997 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001278597.3](#)

**RefSeq Size:** 3729 bp

**RefSeq ORF:** 3000 bp

**Locus ID:** 57101

**UniProt ID:** [Q9NQ90](#)

**Cytogenetics:** 12p13.31

**Protein Families:** Transmembrane

**MW:** 114.1 kDa

**Gene Summary:** ANO2 belongs to a family of calcium-activated chloride channels (CaCCs) (reviewed by Hartzell et al., 2009 [PubMed 19015192]).[supplied by OMIM, Jan 2011]