

## Product datasheet for **RG213098**

### **TMEM16A (ANO1) (NM\_018043) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TMEM16A (ANO1) (NM_018043) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TMEM16A
Synonyms:	DOG1; ORAOV2; TAOS2; TMEM16A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG213098 representing NM\_018043  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGGTCAACGAGAAGTACTCGACGCTCCCGGCCGAGGACCGCAGCGTCCACATCATCAACATCTGCG  
 CCATCGAGGACATCGGCTACCTGCCGTCGAGGGCAGCTGCTGAACTCCTTATCTGTGGACCTGATGC  
 CGAGTGCAAGTATGGCCTGTACTTCAGGGACGGCCGGCGCAAGGTGGACTACATCCTGGTGTACCATCAC  
 AAGAGGCCCTCGGGCAACCGGACCTGGTCAAGGGTGCAGCACAGCGACACCCCTCTGGGGCTCGCA  
 GCGTCAAGCAGGACCACCCCTGCCGGCAAGGGGGCTCGTGGATGCAGGCTCGGGGAGCCCCGAT  
 GGACTACCACGAGGATGACAAGCGCTTCCGCAGGGAGGAGTACGAGGGCAACCTCTGGAGGCGGGCTG  
 GAGCTGGAGCGGGACGAGGACACTAAAATCCACGGAGTCGGGTTTGTGAAAATCCATGCCCTGGAACG  
 TGCTGTGCAGAGAGGCCGAGTTTCTGAACTGAAGATGCCGACGAAGAAGATGTACCACATTAATGAGAC  
 CCGTGGCCTCTGAAAAAATCAACTCTGTGCTCCAGAAAATCACAGATCCCATCCAGCCAAAGTGGCT  
 GAGCACAGGCCCCAGACCATGAAGAGACTCTCCTATCCCTTCTCCGGGAGAAGCAGCATCTATTGACT  
 TGCTGTATAAGGATTCCTTTTTCGACAGCAAAACCCGGAGCACGATTGTCTATGAGATCTTGAAGAGAAC  
 GACGTGTACAAAGGCCAAGTACAGCATGGGCATCACGAGCCTGCTGGCCAATGGTGTGTACGCGGCTGCA  
 TACCCACTGCACGATGGAGACTACAACGGTGAACCGTGCAGTTCACGACAGAAAACCTCTGTACGAAG  
 AGTGGGCACGCTATGGAGTTTTCTATAAGTACCAGCCATCGACCTGGTCAAGGATATTTGGGGAGAA  
 GATCGGCTGTACTTCGCTGGTGGCGGTGTACACCCAGATGCTCATCCCTGCCTCCATCGTGGGAATC  
 ATTGTCTTCTGTACGGATGCCACCATGGATGAAAACATCCCAGCATGGAGATGTGTGACCAGAGAC  
 ACAATATCACCATGTGCCCGCTTTCGACAAGACCTGCAGCTACTGGAAGATGAGCTCAGCTGCCAC  
 GGCCCGCCAGCCACCTCTTCGACAACCCCGCCACGGTCTTCTCTGTCTTTCATGGCCCTCTGGGCT  
 GCCACCTTCATGGAGCACTGGAAGCGGAAACAGATGCGACTCAACTACCGCTGGGACCTCACGGGCTTGT  
 AAGAGGAAGAGGAGGCTGTCAAGGATCATCCTAGAGCTGAATACGAAGCCAGAGTCTTGGAGAAGTCTCT  
 GAAGAAAGAGTCCAGAAACAAAGAGACTGACAAAGTGAAGCTGACATGGAGAGATCGGTTCCAGCCTAC  
 CTCCTAACTTGGTCTCCATCATCTTCATGATTGCAGTGCAGTTTCCATCGTCTCGGCGTCATCATCT  
 ACAGAATCTCCATGGCCCGCCTTGGCCATGAACTCCTCCCCCTCCGTGCGGTCCAACATCCGGGTCAC  
 AGTCACAGCCACCGCAGTCATCATCAACCTAGTGGTTCATCATCCTCCTGGACGAGGTGTATGGCTGCATA  
 GCCGATGGCTCACCAAGATCGAGTCCCAAAGACGGAGAAAAGCTTTGAGGAGAGGCTGATCTTCAAGG  
 CTTTCTGCTGAAGTTTGTGAATTCCTACACCCCATCTTTACGTGGCGTTCTTCAAAGCCGGTTTGT  
 TGGACGCCGGGCGACTACGTGTACATTTCCGTTCTTCCGAATGGAAGAGTGTGCGCCAGGGGCTGC  
 CTGATGGAGCTATGCATCCAGCTCAGCATCATCATGCTGGGAAACAGCTGATCCAGAACAACCTGTTTCG  
 AGATCGGCATCCGAAGATGAAGAAGCTCATCCGCTACCTGAAGCTGAAGCAGCAGAGCCCCCTGACCA  
 CGAGGAGTGTGTGAAGAGGAAACAGCGGTACGAGGTGATTACAACCTGGAGCCCTTCGCGGGCCTCACC  
 CCAGAGTACATGGAATGATCATCCAGTTTGGCTTCGTCACCTGTTTGTGCGCTCCTCCCCCTGGCCC  
 CACTGTTTGCCTGCTGAACAACATCATCGAGATCCGCTGGACGCCAAAAAGTTTGTACTGAGCTCCG  
 AAGGCCGGTAGCTGTGAGAGCCAAAGACATCGGAATCTGGTACAATATCCTCAGAGGCATTTGGAAAGCTT  
 GCTGTATCATCAATGCCTTCGTGATCTCCTTACGCTGACTTCAATCCCGCGCCTGGTGTACCTCTACA  
 TGTACAGTAAGAACGGGACCATGCACGGCTTCGTCAACACACCTCTCCTCCTTCAACGTCACTGACTT  
 CCAGAACGGCACGGCCCCAATGACCCCTGGACTGGGCTACGAGGTGCAGATCTGCAGGTATAAAGAC  
 TACCGAGAGCCGCGTGGTCGGAACAAGTACGACATCTCCAAGGACTTCTGGGCGCTCTGGCAGCCC  
 GGCTGGCGTTTGTATCGTCTTCCAGAACCTGGTATGTTTATGAGCGACTTTGTGGACTGGGTATCCC  
 GGACATCCCCAAGGACATCAGCCAGCAGATCCACAAGGAGAAGGTGCTCATGGTGGAGCTGTTTATGCGG  
 GAGGAGCAAGACAAGCAGCAGCTGCTGGAACCTGGATGGAGAAGGAGCGGCAGAAGGACGAGCCCGCT  
 GCAACCACCAACAACCAAGCCTGCCAGACAGCTCGGCAGCCAGCCCCAGCCATGCCTACCACGG  
 GGCGTCTCTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG213098 representing NM\_018043  
Red=Cloning site Green=Tags(s)

```

MRVNEKYSTLPAEDRSVHIINICAIEDIGYLPSEGTLLNSLSVDPDAECKYGLYFRDGRRKVDYILVYHH
KRPSGNRTL VRRVQHS DTPSGARSVKQDHPLPGKGASLDAGSGEPPMDYHEDDKRFRREEYEGNLL EAGL
ELERDEDTKIHG VGFVKI HAPWNVLCREAEFLKLMPTKKMYHINETRGLLKKINSVLQKITDPIQPKVA
EHRPQTMKRLSYPF SREKQHLFDLSDKDSFFDSKTRSTIVYEILKRTTCTKAKYSMGITSLLANGVYAAA
YPLHDGDYNGENVEFNDRKLLYEEWARYGVFYKYQPIDLVRKYFGEKIGLYFAWLGVYTQMLIPASIVGI
IVFLYGCATMDENIPSMEMCDQRHNITMCPLCDKTC SYWKMSACATARASHLFDNPATVFFSVFMALWA
ATFMEHWKRKQMR LNYRWDLTGFE EEEEEAVKDH PRAEYEA RVLEKSLKKESRNKETDKVKLTWRDRFPAY
LTNLVSIIFMIAVTFAIVLGVIIYRISMAAALAMNSSPSVRSNIRVTVTATAVIINLVIIILLDEVYGC I
ARWLTKIEVPKTEKSFEERLIFKAFLLKFVNSYTPIFVYVAFFKGRFVGRPGDYVYIFRSFRMEECAPGGC
LMELCIQLSIIMLGKQLIQNNLFEIGIPKMKK LIRYLK LKQQSPDPHEECV KRKQRYEVDYNLEPFAGLT
PEYMEMI IQFGFVTLFVASFPLAPL FALLN NIIIEIRLDAKKFVTELR RPVAVRAKDIGI WYNILRIGLKL
AVIINAFVISFTSDFIPRLVYL MYSKNGTMHGFVNHTLSSFNVSDFQNGTAPNDPLDLGYEVQICRYKD
YREPPWSENKYD ISKDFWAVLAARLAFVIVFQNL VMFMSDFVDWVIPDIPKDISQQIHKEK VLMVELFMR
EEQDKQQLLETWMEKERQKDEPPCNHHNTKACPD SLGSPAPSHAYHGGVL
    
```

TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

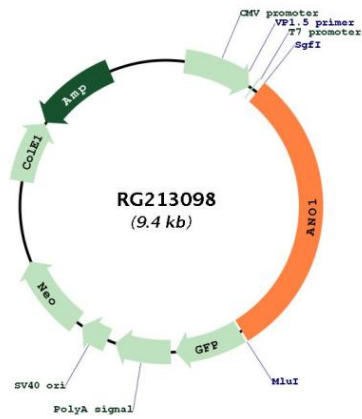


**ACCN:** NM\_018043

**ORF Size:** 2880 bp

<b>OTI Disclaimer:</b>	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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_018043.4</a> , <a href="#">NP_060513.4</a>
<b>RefSeq Size:</b>	4498 bp
<b>RefSeq ORF:</b>	2961 bp
<b>Locus ID:</b>	55107
<b>UniProt ID:</b>	<a href="#">Q5XXA6</a>
<b>Cytogenetics:</b>	11q13.3
<b>Domains:</b>	DUF590
<b>Protein Families:</b>	Transmembrane
<b>Gene Summary:</b>	Calcium-activated chloride channel (CaCC) which plays a role in transepithelial anion transport and smooth muscle contraction. Required for the normal functioning of the interstitial cells of Cajal (ICCs) which generate electrical pacemaker activity in gastrointestinal smooth muscles. Acts as a major contributor to basal and stimulated chloride conductance in airway epithelial cells and plays an important role in tracheal cartilage development. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG213098