

Product datasheet for **RG229400**

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:	ANO1
Synonyms:	DOG1; ORAOV2; TAOS2; TMEM16A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG229400 representing NM_018043
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGGTCAACGAGAAGTACTCGACGCTCCCGGCCGAGGACCGCAGCGTCCACATCATCAACATCTGCG
 CCATCGAGGACATCGGCTACCTGCCGTCGAGGGCAGCTGCTGAACTCCTTATCTGTGGACCTGATGC
 CGAGTGCAAGTATGGCCTGTACTTCAGGGACGGCCGGCGCAAGGTGGACTACATCCTGGTGTACCATCAC
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 GCGTCAAGCAGGACCACCCCTGCCGGCAAGGGGGCTCGTGGATGCAGGCTCGGGGAGCCCCGAT
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 GAGCTGGAGCGGGACGAGGACACTAAAATCCACGGAGTCGGGTTTGTGAAAATCCATGCCCTGGAACG
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 GCCGCGGTGCAACCACCAACCAAAAGCCTGCCAGACAGCCTCGGCAGCCAGCCCCAGCCATGCC
 TACCACGGGGCGTCTCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG229400 representing NM_018043
 Red=Cloning site Green=Tags(s)

MRVNEKYSTLPAEDRSVHIINICAIEDIGYLPSEGTLLNSLSVDPDAECKYGLYFRDGRRKVDYILVYHH
 KRPSGNRTL VRRVQHS DTPSGARSVKQDHPLPGKGASLDAGSGEPPMDYHEDDKRFRREEYEGNLL EAGL
 ELERDEDTKIHG VGFVKI HAPWNVLCREAEFLKLMPTKKMYHINETRGLLKKINSVLQKITDPIQPKVA
 EHRPQTMKRLSYPF SREKQHLFDLSDKDSFFDSKTRSTIVYEILKRTTCTKAKYSMGITSLLANGVYAAA
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 IVFLYGCATMDENIPSMEMCDQRHNITMCPLCDKTC SYWKMSACATARASHLFDNPATVFFSVFMALWA
 ATFMEHWKRKQMR LN YRWDLTGFE EEEAVKDH PRAEYEA RVLEKSLKKE SRNKEKRRHIPEESTNKWKQ
 RYKTAMAGVKLTDKVKL TWRDRFPAYLNLVSIIFMIAVTF AIVLGVIIYRISMAAALAMNSSPSVRSNI
 RVTVTATAVIINLVV IILLDEVYGC IARWLT KIEVPKTEKSFEERLIFKAFLLKFVNSYTPIFYVAFFKG
 RFVGRPGDYVYIFRSFRMEECAPGGCLMELCIQLS IIMLGKQLIQNNLFEIGIPKMKKLI RYLKQKQSP
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 ELRRPVAVRAKD IGIWYNI LRGIGKLAVIINAFVISFTSDFIPRLVYLYMYSKNGTMHGFVNHTLSSFNV
 SDFQNGTAPNDPLDLGYEVQICRYKDYREPPWSENKYDISKDFWAVLAARLAFVIVFQNLVMFMSDFVDW
 VIPDIPKDISQQIHKEKVL MVELFMREEQDKQQLLE TWMEKERQKDEPPCNHNTKACPDSL GSPAPSHA
 YHGGVL

TRTRPLE - GFP Tag - V

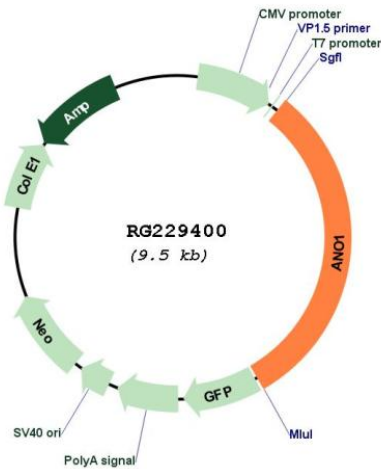
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_018043

ORF Size: 2958 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_018043.6](#)

RefSeq Size: 4811 bp

RefSeq ORF: 2961 bp

Locus ID: 55107

UniProt ID: [Q5XXA6](#)

Cytogenetics: 11q13.3

Domains: DUF590

Protein Families: Transmembrane

Gene Summary: 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]