

Product datasheet for **RC223382**

Anoctamin 3 (ANO3) (NM_031418) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Anoctamin 3 (ANO3) (NM_031418) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Anoctamin 3
Synonyms: C11orf25; DYT23; DYT24; GENX-3947; TMEM16C
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC223382 representing NM_031418
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTCCACCATTGAGGCTCCATTCAGTCCTTTAAACAGCAAAAAGGTATGAATATAAGCAAGAGTGAGA
TAACAAAAGAACTTCGTTAAAACCGTCTCGGAGATCCCTGCCTTGCCCGCCAGAGCTACGCTTACTC
AAAGAGCTTGAGCCAGTCTACTTCCCTCTCCAGTCAACCGAGAGTGAATCTCAGGCTCCACATCTATA
ACCTTAATCTCCACTGACAAAGCAGAGCAAGTTAATACTGAGGAGAATAAAAACGACTCTGTGCTGAGAT
GTTCAATTTGCTGACCTCAGCGATTTTTGTTGGCCCTAGGAAAAGATAAGGATTACACGGATGAATCAGA
ACACGCTACTTATGACCGATCTCGTCTCATTAAATGACTTTGTTATCAAAGATAAATCTGAATTCAGACA
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CACATTCATGGGACACGCTGTGCAAGTATGCAGAGAGGCTGAATATCAGGATGCCCTTCAGGAAAAAAT
GCTATTACACTGACGGGAGGAGCAAAATCAATGGCAGGATGCAAATTTATTTAGAGAATCAAAAAGT
GATGGCCCAAAACCAATGGTTCTTGACAAGTCAGCTTTTCCAGACCTAGAGGAGTCAGACTGCTATACT
GGCCCCCAGCCGTGCACGGATTCACCACTTCATAATAAATAAAGACACCTTCTTCAGCAATGCTA
CTCGAAGCAGAATAGTCTATCACATGCTGGAACGCACCAAAATATGAAAATGGAATATCAAAAAGTGGGTAT
CCGTAAACTTATAAAACAATGGCTCATACATAGCAGCGTTTCCACCACATGAGGGAGCCTACAAAAGTAGC
CAGCCCATTAACCCATGGACCTCAGAATAACAGACATCTATTATAGAGCGCTGGGCACGCTGGGGAA
TGTGGTATAAGCATCAGCCTCTGGATTTAATCAGGCTATACTTTGGTGAGAAGATTGGACTATACTTTGC
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AAAAGGAGAAGGAGTATACTGACCTATACTTGGGACCTTATCGAATGGGAAGAAGAGGAGGAAACCTTC
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 TCAGCCTTCTCAGACAAAGTCACTCGTCTTCTTGTCTCAGGAATATTCTTCATGATATCCTTG
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 TGATCCAGACGTACAAAGGTCTACATGACCGAATACGACGAGAGAAGTACTTAGTTCAAGAAATGAT
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 CCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAGGTTTAA

Protein Sequence:

>RC223382 representing NM_031418
 Red=Cloning site Green=Tags(s)

MVHHSGISQSFKQKGMNISKSEITKETSLKPSRRSLPCLAQSYAYSLSLQSTSLFQSTESSESQAPTSTI
 TLISTDKAEQVNTTEENKNDVLRCSFADLSDFCLALGKDKDYTDESEHATYDRSRLINDFVIKDKSEFKT
 KLSKNDMNYIASSGPLFKDGKRIDYILVYRKTNIQYDKRNTFEKNLRAEGLMLEKEPAIASPDIMFIKI
 HIPWDTLCKYAERLNIRMPFRKKCYTDRSKSMGRMQTYFRRIKNWMAQNPMLDKSAFPDLEESDCYT
 GPF SRARIHFFIINNKTFFSNATRSRIYHMLERTKYENGISKVGIRKLINNGSYIAAFPPEGAYKSS
 QPIKTHGPQNNRHLLYERWARWGMWYKHQPLDLIRLYFGEKIGLYFAWLGWYTGMLIPAAIVGLCVFFYG
 LFTMNNSQVSQEI CKATEVFMCP LCKNCSLQRLNDSCIYAKVTYLF DNGGTVFFAIFMAIWATVLEFW
 KRRRSILTYTWDLIEWEEEEETLRPQFEAKYYKMEIVNPITGKPEPHQPSDKVTRLLVSVSGIFFMISL
 VITAVFGVVVYRLVVMQFASFKNWFIKQYWFATSAAAVCINFIIIMLLNLAYEKIAYLLTNLEYP RTE
 SEWENSFALKMFLFQFVNLNSSIFYIAFFLGRFVGHPGKYNKLFDRWRLEECHPSGCLIDLCLQMGVIMF
 LKQIWNFMELGYPLIQNWSRHKIKRGIHDASIPQWENDWNLQPMNLHGLMDEYLEMVLQFGFTTIFVA
 AFPLAPLLALLNNIIIEIRLDAYKFVTQWRRPLPARATDIGIWLGILEGIGILAVITNAFVIAITSDYIPR
 FVYKYGPCANHVEPSENCLKGYVNNLSFFDLSELGMGKSGYCRYRDRGPPWSSKPYEFTLQYWHIL
 AARLAFIIVFEHLVFGIKSFIAYLIPDVPKGLHDIRREKYL VQEMMYEAELEHLQQRRKSGQPVHHEW
 P

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8011_b11.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_031418

ORF Size: 2943 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 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).

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_031418.4](#)

RefSeq Size: 6641 bp

RefSeq ORF: 2946 bp

Locus ID: 63982

UniProt ID: [Q9BYT9](#)

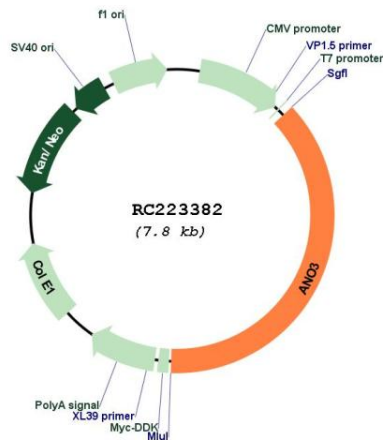
Cytogenetics: 11p14.3-p14.2

Protein Families: Transmembrane

MW: 114.5 kDa

Gene Summary: The protein encoded by this gene belongs to the TMEM16 family of predicted membrane proteins, that are also known as anoctamins. While little is known about the function of this gene, mutations in this gene have been associated with some cases of autosomal dominant craniocervical dystonia. Cells from individuals with a mutation in this gene exhibited abnormalities in endoplasmic reticulum-dependent calcium signaling. Studies in rat show that the rat ortholog of this protein interacts with, and modulates the activity of a sodium-activated potassium channel. Deletion of this gene caused increased pain sensitivity in the rat model system. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2015]

Product images:



Circular map for RC223382