

Product datasheet for **RC203922**

TMEM24 (C2CD2L) (NM_014807) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TMEM24 (C2CD2L) (NM_014807) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TMEM24
Synonyms:	DLNB23; TMEM24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC203922 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATCCGGGCTGGGGGACGCGGACGTGGGCTGGGCGGCTTGTCTGATCCTCTTCGCGCCTCGCTGC
 TCACGGTGTTCGCTGGCTGCTGCAATATGCCCGGGCTTGTGGCTGGCGCGGGCCCGGGGACCGGGG
 CCCGGGACCCGCCTTAGCCGGGAACCCCGGGTTCCTGCGGGAGCTGGGCGTGTGGCGCTCGCTGCTG
 CGGCTGCGGGGACTCGGGCTGGCGCCGCGAGGAGCCAGGAGTCCGGGGCTCTGGCGTCACTCTTCG
 CCTTCAAGTCTTCCGGGAGAAGTGGCAGCGGGCTTGGGTGCGAGCGCTGAACGAGCAGGCTGCAGAAA
 CGGGAGCTCCATCCAATCGCCTTTGAGGAGGTGCCCAACTCCCACCCAGAGCCAGCATCAGTCATGTG
 ACCTGCGTAGACCAATCTGAGCATAACATGGTGTGCGTTGCCAGCTCTCTGCTGAGGAGGTGCGGTTCC
 CAGTCTCTGTGACCCAGCAGTCCCCGCTGCCGTCTCCATGGAGACCTACCACGTCACCTGACACTGCC
 ACCAACACAGTTGGAAGTCAACCTGGAGGAAATCCCTGGTGGGGGCTGCTCATATCCTGGGCTTCACT
 GATCGCCAGATCTCAGCCTAACGGTGCTTCCCAAGCTTCAGGCCAGGGAGAGAGGTGAAGAACAAGTGG
 AGCTCTCCACAATTGAGGAACTGATCAAGGATGCCATAGTCAGCACCCAGCCAGCCATGATGGTCAACCT
 CAGGGCTTGTCTGCCCCAGGAGGCTGGTACCCAGTGAGAAGCCACCCATGATGCCCCAGGCTCAGCCA
 GCCATCCCAGACCTAACCGTTATTCCTACGGCAGCTTCGGGCATCTCACTTGGGAAATGAGCTGGAAG
 GCACCGAGGAACTGTGCTGTGTAGCTGAACTCGACAACCCATGCAGCAGAAGTGGACCAAGCCCGGAG
 GGCTGGATCCGAGGTGGAGTGGACAGAAGACCTGGCACTGGATCTGGGCCCCAGAGCCGGGAGCTGACC
 CTCAAAGTGTGAGGAGCAGCAGCTGTGGAGACCCGAACCTCCTAGGCCAGGCCACACTGCCTGTGGGT
 CCCCCTCAGACCACTGTCTCGAAGACAGTTGTGCCACTCACCCAGGGCCAGGAAAGCCCTGGGACC
 AGCAGCCACCATGGCAGTGGAGCTTCACTATGAGGAGGGCTCTCCCCGGAACCTGGGTACTCCACCTCC
 TCCACTCCACGCCCCAGCATCACACCTACCAAGAAGATTGAGCTTGACCGGACCATCATGCCGATGGCA
 CCATTGTCAACACAGTCAACACTGTCCAGTCCCGGCCCGTATAGACGGCAAATTAGACTCCCCCTCCCG
 CTCCCCGTCCAAGGTGGAGGTGACCGAGAAGACGACAACCTGTGCTGAGTGAGAGCAGTGGCCCCAGCAAT
 ACCTCCCATAGCAGCAGCCGGGACAGCCACCTTCCAACGGCTTGGACCTGTAGCAGAGACAGCGATTC
 GCCAGCTGACAGAGCCCAGTGGGCGGTGGCCAAGAAGACACCCACCAAGCGCAGCACTCTCATCATCTC
 TGGTGTTCCTAAGGTGCCATTGCTCAGGACGAGTTGGCGCTATCCCTGGGCTATGCGGCATCCCTGGAA
 GCCTCAGTGCAGGATGATGCAGGGACCAGCGGAGGCCCTCTTACCTCCCTCAGACCCACCAGCCATGT
 CTCCAGGACCGCTAGATGCCCTCTAGTCCCACAAGTGTCCAGGAAGCAGACGAGACAACCCGTTCCGGA
 TATTTCTGAGAGGCCATCTGTGGATGATATTGAGTCGAAACGGGGTCCACTGGTGCCCTGGAGACCCGC
 AGCCTCAAGGATCACAAAGTGAAGTTTCTGCGCAGCGGCACTAAGCTCATCTTCCGCCGGAGGCTAGGC
 AGAAGGAAGCTGGCCTGAGCCAAACACACGATGACCTCTCCAACGCAACGGCCACGCCAGTGTCCGAAA
 GAAGGCCGGCAGCTTTTCTCGCCGCTTATCAAGCGCTTTTCTTCAAATCCAACCCAAGGCCAATGGT
 AACCCAGCCCCAGCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC203922 protein sequence
Red=Cloning site Green=Tags(s)

MDPGWGQRDVGWAALLILFAASLLTVFAWLLQYARGLWLARARGDRGPGPALAGEPAGSLRELGVWRSLL
 RLRATRAGAAEPEGVGRLLASLFAFKSFRENWQRAWVRALNEQACRNGSSIQIAFEEVPQLPPRASISHV
 TCVDQSEHTMVLRCQLSAEEVRFVSVTQQSPAAVSMETVYHVTLLPPTQLEVNLEEIPGEGLLISWAFT
 DRPDLSTLVLPKLQAREREGEEQVELSTIEELIKDAIVSTQPAMMVNLRACSAAGGLVPSEKPPMPQAQP
 AIPRPNRFLRQLRASHLGNELEGTEELCCVAELDNPMQKWKPARAGSEVEWTEDLALDLGPQSRELT
 LKVLRSSSCGDTELLGQATLPVGSRSRPLSRRQLCPLTPGPGKALGPAATMAVELHYEEGSPRNLTPTS
 STPRPSITPTKKIELDRTIMPDGTIVTTVTVQSRPRIDGKLDSPSRSPSKVEVTEKTTTVLSESSGSPN
 TSHSSSRDHLNGLDPVAETAIRQLTEPSGRVAKKTPTKRSTLIIISGVSKVPIAQDELALSLGYAASLE
 ASVQDDAGTSGGPSSPPSDPPAMSPGLDALSSPTSVQEADETTSDISERPSVDDIESETGSTGALETR
 SLKDHKVSFLRSGTKLIFRRRPRQKEAGLSQSHDDL SNATATPSVRKKAGFSRRLIKRFSFKSKPKANG
 NPSPQL

TRTRPLEQKLISEEDLANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6695_h02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_014807

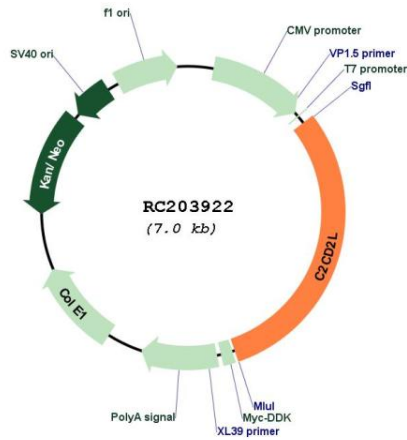
ORF Size: 2118 bp

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](#)

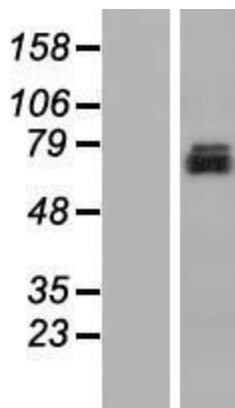
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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_014807.2
RefSeq Size:	3402 bp
RefSeq ORF:	2124 bp
Locus ID:	9854
UniProt ID:	O14523
Cytogenetics:	11q23.3
Protein Families:	Transmembrane
MW:	76.2 kDa
Gene Summary:	Lipid-binding protein that transports phosphatidylinositol, the precursor of phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2), from its site of synthesis in the endoplasmic reticulum to the cell membrane (PubMed:28209843). It thereby maintains the pool of cell membrane phosphoinositides, which are degraded during phospholipase C (PLC) signaling (PubMed:28209843). Plays a key role in the coordination of Ca(2+) and phosphoinositide signaling: localizes to sites of contact between the endoplasmic reticulum and the cell membrane, where it tethers the two bilayers (PubMed:28209843). In response to elevation of cytosolic Ca(2+), it is phosphorylated at its C-terminus and dissociates from the cell membrane, abolishing phosphatidylinositol transport to the cell membrane (PubMed:28209843). Positively regulates insulin secretion in response to glucose: phosphatidylinositol transfer to the cell membrane allows replenishment of PI(4,5)P2 pools and calcium channel opening, priming a new population of insulin granules (PubMed:28209843).[UniProtKB/Swiss-Prot Function]

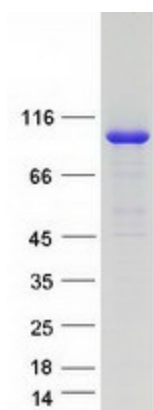
Product images:



Circular map for RC203922



Western blot validation of overexpression lysate (Cat# [LY415016]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203922 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified C2CD2L protein (Cat# [TP303922]). The protein was produced from HEK293T cells transfected with C2CD2L cDNA clone (Cat# RC203922) using MegaTran 2.0 (Cat# [TT210002]).