

Product datasheet for **RG203922**

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:	TurboGFP
Symbol:	TMEM24
Synonyms:	DLNB23; TMEM24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG203922 representing NM_014807
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATCCGGGCTGGGGCAGCGGACGTGGGCTGGCGGCCCTTGCTGATCCTCTTCGCCGCCTCGCTGC
 TCACGGTGTTTCGCTGGCTGCTGCAATATGCCCGGGCTTGTGGCTGGCGCGGGCCCGCGGGGACCGGGG
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 GCCAGCTGACAGAGCCAGTGGGCGGTGGCCAAGAAGACACCCACCAAGCGCAGCACTCTCATCATCTC
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 AGAAGGAAGCTGGCCTGAGCCAATCACACGATGACCTCTCCAACGCAACGCCACGCCAGTGTCCGAAA
 GAAGGCCGGCAGCTTTTCTCGCCGCTTATCAAGCGCTTTTCTTCAAATCCAAACCAAGGCCAATGGT
 AACCCAGCCCCCAGCTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG203922 representing NM_014807
 Red=Cloning site Green=Tags(s)

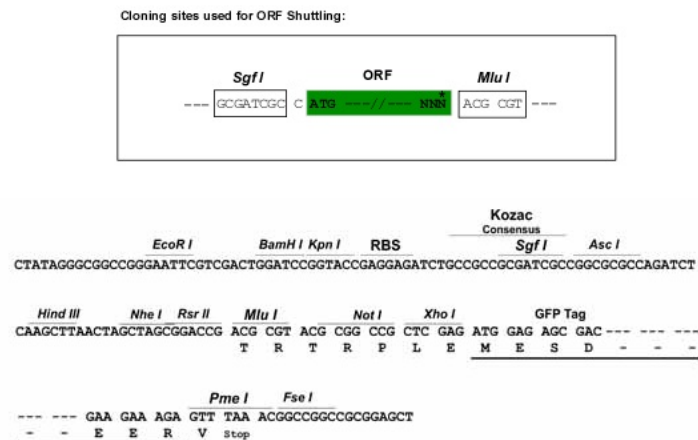
MDPGWGQRDVGWAALLILFAASLLTVFAWLLQYARGLWLARARGDRGPGPALAGEPAGSLRELGVWRSL
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 AIPRPNRLFLRQLRASHLGNELEGTEELCCVAELDNPMQKWKPARAGSEVEWTEDLALDLGPQSRELT
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 TSHSSSRDHLNGLDPVAETAIRQLTEPSGRVAKKTPTKRSTLIIISGVSKVPIAQDELALSLGYAASLE
 ASVQDDAGTSGGPSSPPSDPPAMSPGPLDALSSPTSVQEADETTSDISERPSVDDIESETGSTGALETR
 SLKDHKVSFLRSGTKLIFRRRPQKEAGLSQSHDDL SNATATPSVRKKAGFSRRLIKRFSKSKPKANG
 NPSPQL

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_014807

ORF Size: 2121 bp

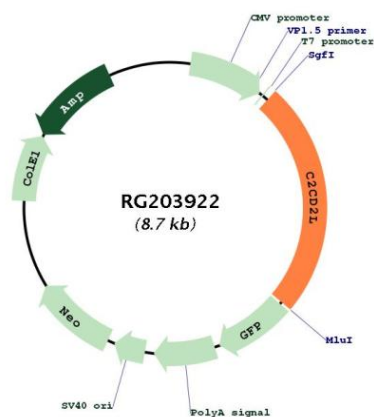
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<u>NM_014807.2</u>
RefSeq Size:	3370 bp
RefSeq ORF:	2124 bp
Locus ID:	9854
UniProt ID:	<u>O14523</u>
Cytogenetics:	11q23.3
Protein Families:	Transmembrane
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 RG203922