

## Product datasheet for **RG206832**

### **TMEM111 (EMC3) (NM\_018447) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TMEM111 (EMC3) (NM_018447) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TMEM111
Synonyms:	POB; TMEM111
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG206832 representing NM_018447 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCAGGGCCAGAAGTGTGCTCGACTCCAACATCCGCCTCTGGGTGGTCTTACCCATCGTTATCATCA  
 CTTTCTTCGTAGGCATGATCCGCCACTACGTGTCCATCCTGCTGCAGAGCGACAAGAAGCTCACCCAGGA  
 ACAAGTATCTGACAGTCAAGTCCTAATTCGAAGCAGAGTCCTCAGGGAAAATGGAAAATACATTCCCAA  
 CAGTCTTTCTTGACACGAAAATATTATTTCAACAACCCAGAGGATGGATTTTCAAAAAAATAAACGGA  
 AGGTAGTGCCACCTTCTCTATGACTGATCCTACTATGTTGACAGACATGATGAAAGGGAATGTAACAAA  
 TGTCTCCCTATGATTCTTATTGGTGGATGGATCAACATGACATTCTCAGGCTTTGTCAACCAAGGTC  
 CCATTTCCACTGACCCTCCGTTTTAAGCCTATGTTACAGCAAGGAATCGAGCTACTCACATTAGATGCAT  
 CCTGGGTGAGTTCTGCATCCTGGTACTTCTCAATGTATTTGGGCTTCGGAGCATTTACTCTCTGATTCT  
 GGGCCAAGATAATGCCGCTGACCAATCACGAATGATGCAGGAGCAGATGACGGGAGCAGCCATGGCCATG  
 CCCGCAGACACAAACAAAGCTTTCAAGACAGAGTGGGAAGCTTTGGAGCTGACGGATCACCAGTGGGCAC  
 TAGATGATGTGAAGAAGAGCTCATGGCCAAAGACCTCCACTTCGAAGGCATGTTCAAAAAGGAATTACA  
 GACCTCTATTTTT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA


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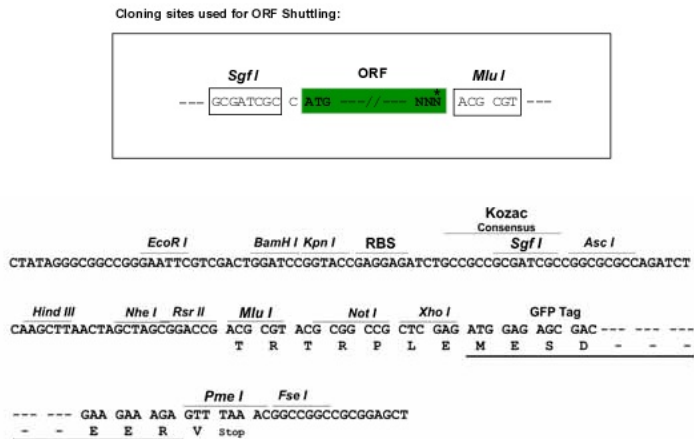
**Protein Sequence:** >RG206832 representing NM\_018447  
 Red=Cloning site Green=Tags(s)

MAGPELLLLDSNIRLWVVLPIVIITFFVGMIRHYVSILLQSDKKLTQEQVSDSQVLIRSRVIRENGKYIPK  
 QSFLTRKYYFNNPEDGFFKKTTRKVVPPSPMTDPTMLTMMKGNVTNVLPMILIGGWINMTFSGFVTTKV  
 PFPLTLRFKPMQLQGIELLLTLDASWVSSASWYFLNVFGLRSIYSLILGQDNAADQSRMMQEQMTGAAMAM  
 PADTNKAFKTEWEALELTDHQWALDDVEEELMAKDLHFEGMFKKELQTSIF

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_018447

**ORF Size:** 783 bp

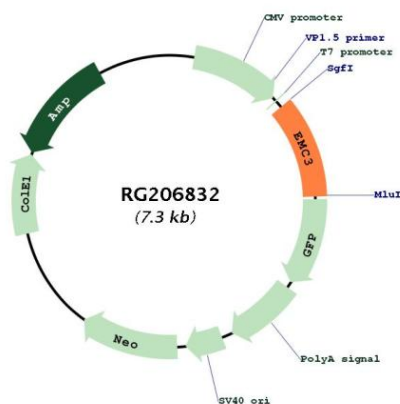
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_018447.1, NP_060917.1</u>
<b>RefSeq Size:</b>	1109 bp
<b>RefSeq ORF:</b>	786 bp
<b>Locus ID:</b>	55831
<b>UniProt ID:</b>	<u>Q9P0I2</u>
<b>Cytogenetics:</b>	3p25.3
<b>Protein Families:</b>	Transmembrane
<b>Gene Summary:</b>	<p>Part of the endoplasmic reticulum membrane protein complex (EMC) that enables the energy-independent insertion into endoplasmic reticulum membranes of newly synthesized membrane proteins (PubMed:30415835, PubMed:29809151, PubMed:29242231, PubMed:32459176, PubMed:32439656). Preferentially accommodates proteins with transmembrane domains that are weakly hydrophobic or contain destabilizing features such as charged and aromatic residues (PubMed:30415835, PubMed:29809151, PubMed:29242231). Involved in the cotranslational insertion of multi-pass membrane proteins in which stop-transfer membrane-anchor sequences become ER membrane spanning helices (PubMed:30415835, PubMed:29809151). It is also required for the post-translational insertion of tail-anchored/TA proteins in endoplasmic reticulum membranes (PubMed:29809151, PubMed:29242231). By mediating the proper cotranslational insertion of N-terminal transmembrane domains in an N-exo topology, with translocated N-terminus in the lumen of the ER, controls the topology of multi-pass membrane proteins like the G protein-coupled receptors (PubMed:30415835). By regulating the insertion of various proteins in membranes, it is indirectly involved in many cellular processes (Probable).</p> <p>[UniProtKB/Swiss-Prot Function]</p>

## Product images:



Circular map for RG206832