

Product datasheet for RC206832

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:	Myc-DDK
Symbol:	TMEM111
Synonyms:	POB; TMEM111
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206832 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGGGCCAGAAGTGTGCTCGACTCCAACATCCGCCTCTGGGTGGTCTTACCCATCGTTATCATCA
CTTTCTTCGTAGGCATGATCCGCCACTACGTGTCCATCCTGCTGCAGAGCGACAAGAAGCTACCCAGGA
ACAAGTATCTGACAGTCAAGTCTAATTCGAAGCAGAGTCCTCAGGGAAAATGGAAAATACATTCACAAA
CAGTCTTTCTTGACACGAAAATATTATTCAACAACCCAGAGGATGGATTTTTCAAAAAACTAAACGGA
AGGTAGTGCCACCTTCTCTATGACTGATCCTACTATGTTGACAGACATGATGAAAGGGAATGTAACAAA
TGTCTCCCTATGATTCTTATTGGTGGATGGATCAACATGACATTCTCAGGCTTTGTACAAACCAAGGTC
CCATTTCCACTGACCCTCCGTTTTAAGCCTATGTTACAGCAAGGAATCGAGCTACTCACATTAGATGCAT
CCTGGGTGAGTTCTGCATCCTGGTACTTCTCAATGATTTGGGCTTCGGAGCATTTACTCTGATTCT
GGGCAAGATAATGCCGCTGACCAATCACGAATGATGCAGGAGCAGATGACGGGAGCAGCCATGGCCATG
CCCGCAGACACAAACAAAGCTTTCAAGACAGAGTGGGAAGCTTTGGAGCTGACGGATCACCAGTGGGCAC
TAGATGATGTCGAAGAAGAGCTCATGGCCAAAGACCTCCACTTCGAAGGCATGTTCAAAAAGGAATTACA
GACCTCTATTTTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC206832 protein sequence
 Red=Cloning site Green=Tags(s)

MAGPELLLDNIRLWVLPVIVITFFVGMIRHYVSILLQSDKKL TQEQVSDSQVL IRRSVLRENGKYIPK
 QSFLTRKYFFNPPEDGFFKKTTRKVVPPSPMDPTMLTDMMKGNVTNVLPMILIGWINMTFSGFVTTKV
 PFPLTLRFKPLMQGIELLTLDASWVSSASWYFLNVFGLRSIYSLILGQDNAADQSRMMQEQMTGAAMAM
 PADTNKAFKTEWEALELTDHQWALDDVEEELMAKDLHFEGMFKKELQTSIF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6433_f08.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_018447

ORF Size: 783 bp

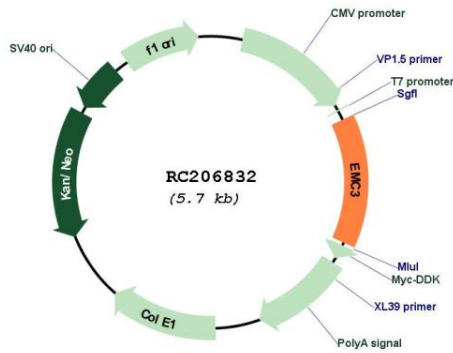
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

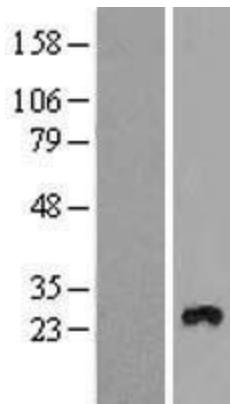
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_018447.3
RefSeq Size:	1107 bp
RefSeq ORF:	786 bp
Locus ID:	55831
UniProt ID:	Q9P0I2
Cytogenetics:	3p25.3
Protein Families:	Transmembrane
MW:	30 kDa
Gene Summary:	<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). [UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for RC206832



Western blot validation of overexpression lysate (Cat# [LY413029]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206832 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).