

## Product datasheet for **RR213100**

### Emc3 (NM\_001008355) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Emc3 (NM_001008355) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Emc3
Synonyms:	Pob; RGD1311566; Tmem111
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR213100 representing NM_001008355 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGC**C

ATGGCGGGGCCCGAGCTGCTGCTTGACTCTAACATCCGCCTCTGGGTGGTCTGCCCATCGTTATAATCA  
CCTTCTCGTGGGCATGATCCGCCACTACGTGTCAATCCTACTGCAGAGCGATAAGAAGCTCACCCAGGA  
ACAAGTGTCCGACAGTCAGGTCCTAATTCGAAGCAGAGTCCTCAGAGAAAATGGAAAATACATTCCTCAAG  
CAGTCTTTCTTAACACGGAAATATTACTTCAACAACCCAGAGGATGGATTTTTCAAAAAACCAAAGGA  
AGGTTGTGCCACCTTCACCTATGACAGACCCACCATGCTCACAGACATGATGAAAGGGAACGTCACCAA  
TGTCCTCCCAATGATCCTTATCGGCGGATGGATCAACATGACATTCTCAGGCTTTGTCACAACTAAGGTC  
CCGTTTCCACTGACGCTTCGCTTCAAGCCTATGCTTCAGCAGGGAATAGAGCTGCTCACACTAGACGCGT  
CCTGGGTGAGTTCTGCATCCTGGTATTTCTCAATGTGTTGGACTCCGGAGCATTATTTCTCTAATCCT  
GGGCAAGACAATGCTGCTGACCAGTCACGAATGATGCAGGAGCAGATGACAGGAGCAGCAATGGCCATG  
CCTGCGGACACCAAAAGCTTCAAGACAGAGTGGGAAGCTTTGGAAGTACAGATCACCAGTGGGCGC  
TCGATGATGTGGAAGAAGAACTCATGGCCAGAGACCTCCACTTTGAAGGCATGTTCAAAAAGGAGCTGCA  
GACGTCCATATTC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA



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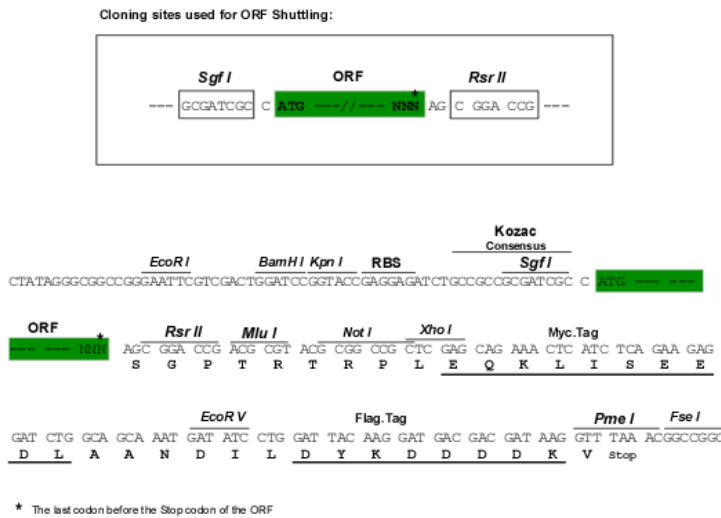
**Protein Sequence:** >RR213100 representing NM\_001008355  
 Red=Cloning site Green=Tags(s)

MAGPELLLLDSNIRLWVLPVIVITFFVGMIRHYVSILLQSDKKL TQEQVSDSQVLIRSRVLRNGKYIPK  
 QSFLTRKYYFNNPEDGFFKKTTRKVVPPSPMTDPTMLTDMKGNVTNVLPMILIGWINMTFSGFVTTKV  
 PFPLTLRFKPM LQQGIELLTLDASWVSSASWYFLNVFGLRSIYSLILGQDNAADQSRMMQEOMTGAAMAM  
 PADTNKAFKTEWEALELTDHQWALDDVEEELMARDLHFEGMFKKELQTSIF

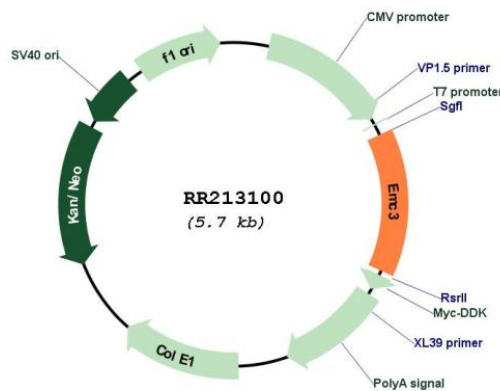
SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001008355  
**ORF Size:** 783 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>RefSeq:</b>	<a href="#">NM_001008355.1</a> , <a href="#">NP_001008356.1</a>
<b>RefSeq Size:</b>	1924 bp
<b>RefSeq ORF:</b>	786 bp
<b>Locus ID:</b>	312640
<b>UniProt ID:</b>	<a href="#">Q5U2V8</a>
<b>Cytogenetics:</b>	4q42
<b>MW:</b>	30 kDa
<b>Gene Summary:</b>	Part of the endoplasmic reticulum membrane protein complex (EMC) that enables the energy-independent insertion into endoplasmic reticulum membranes of newly synthesized membrane proteins. Preferentially accommodates proteins with transmembrane domains that are weakly hydrophobic or contain destabilizing features such as charged and aromatic residues. Involved in the cotranslational insertion of multi-pass membrane proteins in which stop-transfer membrane-anchor sequences become ER membrane spanning helices. It is also required for the post-translational insertion of tail-anchored/TA proteins in endoplasmic reticulum membranes. 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. By regulating the insertion of various proteins in membranes, it is indirectly involved in many cellular processes.[UniProtKB/Swiss-Prot Function]