

## Product datasheet for **SC108275**

### EMC9 (NM\_016049) Human Untagged Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | EMC9 (NM_016049) Human Untagged Clone  |
| Tag:                      | Tag Free   |
| Symbol:                   | EMC9   |
| Synonyms:                 | C14orf122; CGI-112; FAM158A  |
| Mammalian Cell Selection: | None   |
| Vector:                   | <u>pCMV6-XL5</u>   |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |
| Fully Sequenced ORF:      | >OriGene ORF within SC108275 sequence for NM_016049 edited (data generated by NextGen Sequencing)<br>ATGGGGGAGGTGGAGATCTCGGCCCTGGCCTACGTGAAGATGTGCCTGCATGCTGCCCGG<br>TACCCACACGCCGAGTCAACGGGCTGTTTTGGCGCCAGCGCCGCGGTCTGGAGAATGC<br>CTGTGCCTCACCGACTGTGTGCCCTCTTCCACAGCCACCTGGCCCTGTCCGTCATGTTG<br>GAGGTCGCCCTCAACCAGGTGGATGTGTGGGAGCACAGGCCGGTCTGGTGGTGGCTGGT<br>TACTACCATGCCAATGCAGCTGTGAACGATCAGAGCCCTGGGCCCTGGCCTTGAAAATT<br>GCTGGGCGAATTGCAGAATTCTCCCTGATGCAGTACTTATTATGTTGGATAATCAGAAA<br>CTGGTGCCTCAGCCTCGTGTGCCCCGGTCATCGTCTGGAGAACCAAGGTCTCCGCTGG<br>GTCCCTAAGGATAAAGACTTAGTGATGTGGAGGGACTGGGAAGAGTCACGGCAGATGGTG<br>GGAGCTCTACTGGAAGATCGGGCCACCAGCACCTTGTGGACTTTGACTGCCACCTTGAT<br>GACATCCGGCAGGACTGGACCAACCAGCGGCTCAACACTCAAATCACCCAGTGGGTGGT<br>CCCACTAATGAAATGAAATGCCTGA |
|                           | Clone variation with respect to NM_016049.3  |



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|-------------------------------------|---|
| <b>5' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 5' read for NM_016049 unedited</p> <pre>AATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCGGGAGCCGGCGGGCTACC TGGCAGTCCGAGTTAGCGTTGTCGCCAACCAGCCTCGCTCGCCATGGGGGAGGTGGAG ATCTCGGCCCTGGCCTACGTGAAGATGTGCCTGCATGCTGCCCGGTACCCACACGCCGCA GTCAACGGGCTGTTTTGGGCCAGCGCCGGTCTGGAGAATGCCTGTGCCTCACCGAC TGTGTGCCCTCTCCACAGCCACCTGGCCCTGTCGTCATGTTGGAGGTCGCCCTCAAC CAGGTGGATGTGGGGAGCACAGGCCGGTCTGGTGGTGGCTGGTACTACCATGCCAAT GCAGCTGTGAACGATCAGAGCCCTGGGCCCTGGCCTGAAAATTGCTGGGCGAATTGCA GAATTCTTCCCTGATGCAGTACTTATTATGTTGGATAATCAGAAACTGGTGCCTCAGACT CGTGTGCCCCCGTTCATCGTCTGGAGAACCAAGGTCTCCGCTGGGTCCCTAAGGATAAG AACTTANTGATGTGGAGGACTGGGAAGAGTCACGGCAGATGGTGGGAGCTCTACTGGAA GATCGGGCCACCAGCACCTTGTGGACTTTGACTGCCACCTTGATGACATCCGGCAGGAC TGGACCAACCAGTGGCTCAACACTCAAATCAACCAGTGGGTTGGTCCCATAATGAAAA TGGAAATGCCTGAACCCAGGGCCATGCGGGACCCGTTCCATTAAGAGACTTCGGGCTG ACAAACAAAAACACCACACTAATCCAATATTTTCTCGTATTTCAAATTGCCGGCCGGG NCTTAACCTGTTATCTTGAACAAATCCCGGGTGTCTTCTCTGTGAACCTTCACCAGG CCTTCTTCTGCCCTGGAAGAGGACATCCAATGCCACACCTCTGGCTAATAAATAATTCC CTCATCTT</pre>                             |
| <b>3' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 3' read for NM_016049 unedited</p> <pre>GCACGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAGCCAA TTCTTTTTATTGGAACCGGGCCCGTTGGCCCTGGCTAAGGCATTTCCATTTCCATTAGG GGGACCAACCCACTGGGTGATTTGAGTGTGACCCGTTGGTGGTCCATTCTGCCGGAT GTCATCAAGGTGGCAGTCAAAGTCCACAAGGTGCTGGTGGGCCCGATCTCCAGTAAAGC TCCCACATTTGCCGGGATTTTTCCAGTCCCTCCACATAACTAAGTTCTTATCCTTAGG GACCCAGCGGAGACCTTGGTTTTCCAGGACGATGACCGGGGGCACACGAGGCTGAGGCAC CAGTTTCTGATTCCAACATAAAGTACTGCTTCAGGGAAAAATTCTGCATTTCCGCC AGCATTTTTAAAGGCCAGGGGCCAGGGTTTTGATCGTTCACAGTTGCTTTGGCATGGTA TTAACCAGCCACCCAGACCGGCCTGTGCTCCCCACACTTTCCCTTGGTTGAGGGCG ACCTCCACCTGACGGACAGGGCCAGGTGGCTGTGGAATAGGGGCACACAGTCGGTGAGGC AAAGGTTTTCTCAAACCGGGGCTGGGGCCAAAAACCCCGTTGACTTGCCGCTGTG GGTTACCGGCAACATGCAGGCCATTTTTCTATGGCCAGGGCCGATATTCTCCACCTTC CCCATGGTAAGCGAGTTTCTGGTTCGGGAACAACGCTTACTTCCATTCTAGGTACCCC GCCGTTCCCTCGGGCCGAATTCGCGGCCGCCTATTTGGAGTCCGTTTCAAACCTCT GCACGGTAACTATAAGAACCTTTGTTTTATATATCTCCCCGATCACCCCTCACGCGCTT TTGCGTTAACGGGCCGTTGTTTTCAATTTTTTGAATACCCGTTGTCTGTGGCATAAN AACTTCATTTGCGACTTGAGGCGGGATCTCGTACACCCCG</pre> |
| <b>Restriction Sites:</b>           | NotI-NotI   |
| <b>ACCN:</b>                        | NM_016049   |
| <b>Insert Size:</b>                 | 800 bp  |
| <b>OTI Disclaimer:</b>              | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).  |
| <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).  |

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| <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_016049.3</a> , <a href="#">NP_057133.2</a>   |
| <b>RefSeq Size:</b>           | 896 bp  |
| <b>RefSeq ORF:</b>            | 627 bp  |
| <b>Locus ID:</b>              | 51016   |
| <b>UniProt ID:</b>            | <a href="#">Q9Y3B6</a>  |
| <b>Cytogenetics:</b>          | 14q12   |
| <b>Domains:</b>               | UPF0172   |
| <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). 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> <p>Transcript Variant: This variant (1) encodes the longer isoform (a).</p> |