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Product datasheet for RG200034

EMC9 (NM_016049) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	EMC9
Synonyms:	C14orf122; CGI-112; FAM158A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG200034 representing NM_016049
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGGAGGTGGAGATCTCGGCCCTGGCCTACGTGAAGATGTGCCTGCATGCTGCCCGGTACCCACACG
CCGCAGTCAACGGGCTGTTTTTGGCGCCAGCGCCGCGGTCTGGAGAATGCCTGTGCCTCACCGACTGTGT
GCCCCTCTTCCACAGCCACCTGGCCCTGTCCGTCATGTTGGAGGTCGCCCTCAACCAGGTGGATGTGTGG
GGAGCACAGGCCGGTCTGGTGGTGGCTGGTTACTACCATGCCAATGCAGCTGTGAACGATCAGAGCCCTG
GGCCCCTGGCCTTGAAAATTGCTGGGCGAATTGCAGAATTCTTCCCTGATGCAGTACTTATTATGTTGGA
TAATCAGAAACTGGTGCCTCAGCCTCGTGTGCCCCCGGTCATCGTCCTGGAGAACCAAGGTCTCCGCTGG
GTCCCTAAGGATAAGAACTTAGTGATGTGGAGGGACTGGGAAGAGTCACGGCAGATGGTGGGAGCTCTAC
TGGAAGATCGGGCCCACCAGCACCTTGTGGACTTTGACTGCCACCTTGATGACATCCGGCAGGACTGGAC
CAACCAGCGGCTCAACACTCAAATCACCCAGTGGGTTGGTCCCACTAATGGAAATGGAAATGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG200034 representing NM_016049
Red=Cloning site Green=Tags(s)

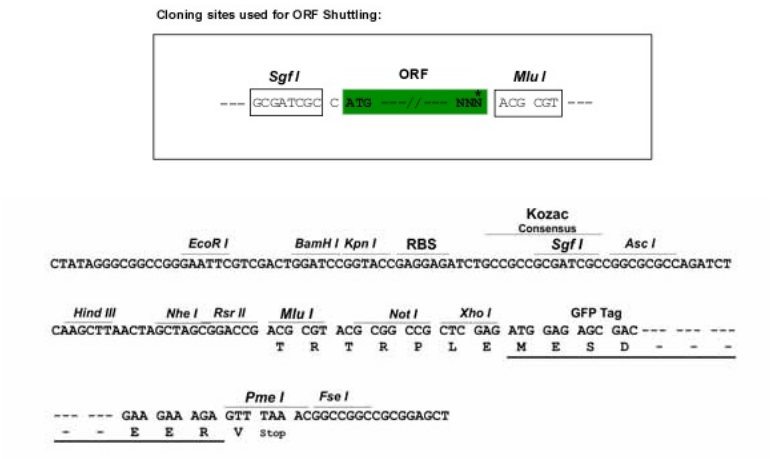
MGEVEISALAYVKMCLHAARYPHAAVNGLFLAPAPRSGECLCLTDCVPLFHSHLALSVMLEVALNQVDVW
GAQAGLVVAGYYHANAAVNDQSPGPLALKIAGRIAEFFPDAVLIMLDNQKLVPQPRVPPVIVLENQGLRW
VPKDKNLVMWRDWEESRQMVGALLEDRAHQHLVDFDCHLDDIRQDWTNQRLNTQITQWVGPTNGNGNA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

View online »

Cloning Scheme:



ACCN: NM_016049

ORF Size: 624 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_016049.4

RefSeq Size: 896 bp

RefSeq ORF: 627 bp

Locus ID: 51016

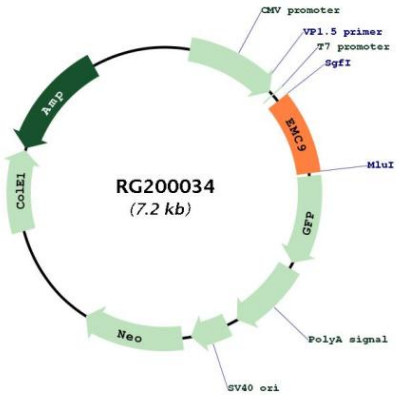
UniProt ID: Q9Y3B6

Cytogenetics: 14q12

Domains: UPF0172

Gene Summary: 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]

Product images:



Circular map for RG200034