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Product datasheet for RC239615

GFM2 (NM_001281302) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GFM2 (NM_001281302) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GFM2
Synonyms:	EF-G2mt; EFG2; hEFG2; mEF-G 2; MRRF2; MST027; MSTP027; RRF; RRF2; RRF2mt
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC239615 representing NM_001281302
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAAAGGGAATGGATTCAAGGCCAGGCATGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCG
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ACCCAGTGTGTATATTAATAATATATGCTGCTATAAAATAAGAGCAAGTTTAAAAAGATTAAAGCCACAT
GTGCCGCTTGGAAGAAATTGCAGTTCTCTACCAGGCTTAATAGGAAATGATATCAAATCCCTTCATTCCA
TCATCAATCCTCCCATAGCTAAAATCCGTAATATTGGAATTATGGCTCATATTGATGCAGGCAAAACTAC
CACCACAGAAAGAATATTGTACTATTCCGGATATACAAGATCACTGGGAGATGTTGATGATGGAGACACA
GTGACAGATTTCATGGCCCAAGAGCGAGAAAGAGGCATTACTATTCAATCAGCTGCTGTTACATTTGATT
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CCTAAGAGTGTTGGATGGTGCAGTGGCTGTATTTGATGCCTCTGCTGGTGTAGAGGCCCAGACTCTCACA
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CCATGAATCCTCAAGATCAAAATACACTGCTCAACCGGAGAAGTGGTTTGACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC239615 representing NM_001281302
Red=Cloning site Green=Tags(s)

MKREWIQGQAWWLTPVIPALWEAETVTVWRIKMLTNLRIFAMSHQTIPSVYINNICCYKIRASLKRLKPH
VPLGRNCSSLPGLIGNDIKSLHSIINPPIAKIRNIGIMAHIDAGKTTTTERILYYSGYTRSLGDVDDGDT
VTDFMAQERERGITIQSAAVTFDWKGYRVNLIDTPGHVDFTLEVERCLRVLDGAVAVFDASAGVEAQTLT
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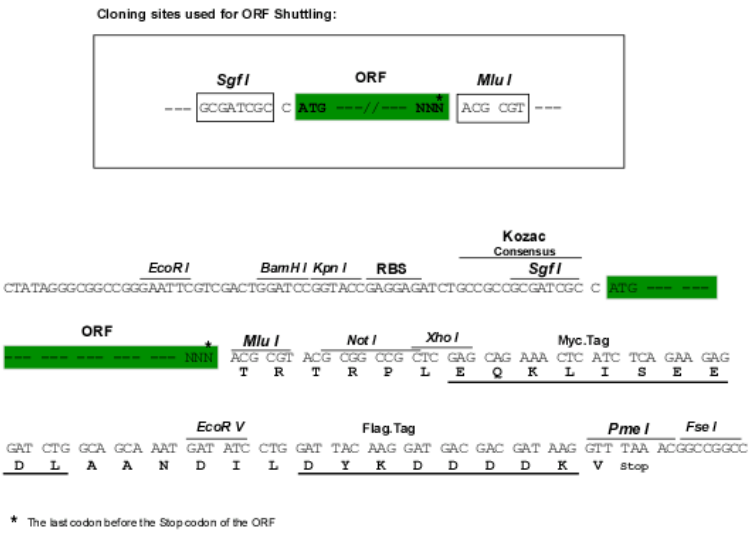
NSNDGKDFERKPLLEMNDPELLKETTEARNALIEQVADLDDEFADLVLEEFSENFDLLPAEKLQTAIHRV
TLAQTAVPVLCGSALKNKGIQPLLDAVTMYLPSPEERNYEFLQWYKDDLCALAFKVLHDKQRGPLVFMRI
YSGTIKPQLAIHNINGNCTERISRLLLPFADQHVEIPSLTAGNIALTVGLKHTATGDTIVSSKSSALAAA
RRAEREGEKKHRQNNEAERLLLAGVEIPEPVFFCTIEPPSLSKQPDLEHALKCLQREDPSLKVRLDPDSG
QTVLCGMGELHIEIIHDRIKREYGLETYLGPLQVAYRETILNSVRATDTLDRTLGDKRHLVTVEVEARPI
ETSSVMPVIEFEYAESINEGLLKVSQEAIENGIHSACLQGPLLGSPIQDVAITLHSLTIHPGTSTTMISA
CVSRCVQKALKKADKQVLEPLMNLEVTVARDYLSPVLADLAQRRGNIQEIQTRQDNKVVIGFVPLAEIMG
YSTVLRTLTSGSATFALELSTYQAMNPQDQNTLLNRRSGLT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

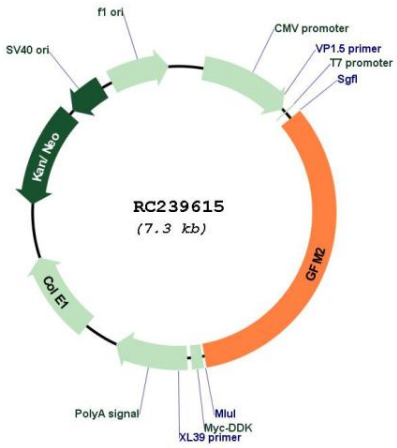
Cloning Scheme:



ACCN:	NM_001281302
ORF Size:	2433 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_001281302.2
RefSeq Size:	3382 bp
RefSeq ORF:	2436 bp
Locus ID:	84340
UniProt ID:	Q969S9
Cytogenetics:	5q13.3
MW:	91 kDa
Gene Summary:	Eukaryotes contain two protein translational systems, one in the cytoplasm and one in the mitochondria. Mitochondrial translation is crucial for maintaining mitochondrial function and mutations in this system lead to a breakdown in the respiratory chain-oxidative phosphorylation system and to impaired maintenance of mitochondrial DNA. This gene encodes one of the mitochondrial translation elongation factors, which is a GTPase that plays a role at the termination of mitochondrial translation by mediating the disassembly of ribosomes from messenger RNA . Its role in the regulation of normal mitochondrial function and in disease states attributed to mitochondrial dysfunction is not known. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2013]

Product images:



Circular map for RC239615