

Product datasheet for **RG213244**

GFM2 (NM_170691) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GFM2 (NM_170691) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GFM2
Synonyms:	EF-G2mt; EFG2; hEFG2; mEF-G 2; MRRF2; MST027; MSTP027; RRF; RRF2; RRF2mt
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG213244 representing NM_170691
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTGACCAACTTGAGGATATTTGCAATGAGTCATCAGACAATACCCAGTGTGTATTAATAATATAT
 GCTGCTATAAAATAAGAGCAAGTTTAAAAAGATTAAAGCCACATGTGCCGCTTGGAAGAAATTGCAGTTC
 TCTACCAGGCTTAATAGGAAATGATATCAAATCCCTTCATTCCATCATCAATCCTCCCATAGCTAAATC
 CGTAATATTGGAATTATGGCTCATATTGATGCAGGCAAACTACCACCACAGAAAGAATATTGTACTATT
 CCGGATATACAAGATCACTGGGAGATGTTGATGATGGAGACACAGTGACAGATTCATGGCCCAAGAGCG
 AGAAAGAGGCATTACTATTCAATCAGCTGCTGTTACATTTGATTGGAAAGGTTATAGAGTCAATCTAATT
 GATACACCAGGTCATGTGGACTTTACCTTGAGGTTGAGCGGTGCCTAAGAGTGTGGATGGTGCAGTGG
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 TCAGCCCTGTCTGGCAGATCTGGCACAAGAAGAGGAAACATTCAGGAAATTCAGACTCGCCAGGACAA
 CAAAGTTGTTATTGGATTTGTTCCCTTAGCAGAAATTATGGGTTATTCAACTGTGCTTCGAACGCTAACA
 TCAGGCTCAGCTACTTTTGCCTTAGAACTATCTACTTATCAAGCCATGAATCCTCAAGATCAAAATACAC
 TGCTCAACCGGAGAAGTGGTTTGACC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

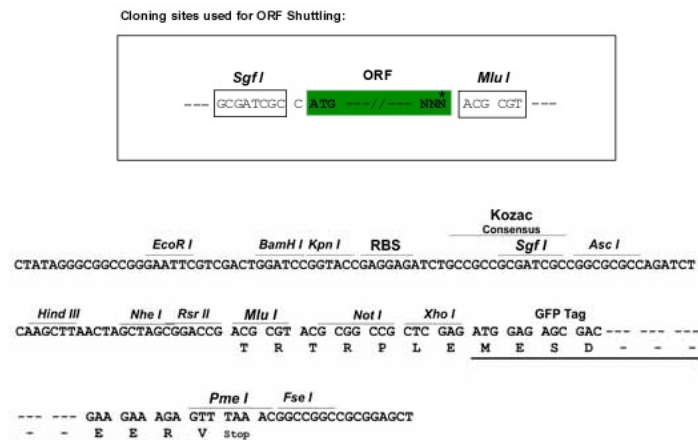
Protein Sequence: >RG213244 representing NM_170691
 Red=Cloning site Green=Tags(s)

MLTNLRIFAMSHQTIPSVYINNICYKIRASLRLKPHVPLGRNCSSLPGLIGNDIKSLHSIINPPIAKI
 RNIGIMAHIDAGKTTTTTERILYYSGYTRSLGDVDDGDTVDFMAQERERGITIQSAAVTFDWKGYRVNLI
 DTPGHVDFTLVERCLRVLDGAVAVFDASAGVEAQTLTVWRQADKHNIPRICFLNKMMDKTGASFKYAVES
 IREKLKAKPLLLQLPIGEAKTFKGVVDVVMKEKLLWNCNSNDGKDFERKPLLEMNDPELLKETTEARNAL
 IEQVADLDDEFADLVLEEFSENFDLLPAEKLQTAIHRVTLAQTAVPVLGCSALKNKGIQPLLDVAVTMYLP
 SPEERNYEFLEISRLLLPFADQHVEIPSLTAGNIALTVGLKHTATGDTIVSSKSSALAAARRAEREK
 KHRQNEAERLLLAGVEIPEPVFFCTIEPPSLSKQPDLEHALKCLQREDPSLKVRLDPDSSGQTVLCGMGE
 LHIEIIHDRIKREYGLETYLGPLQVAYRETIILNSVRATDLDRTLGDKRHLVTVEVEARPIETSSVMPVI
 EFEYAESINEGLLKVSQEIENGIHSAQLQGPLLGSPIQDVAITLHSLTIHPGTSTTMISACVSRVCQKA
 LKKADKQVLEPLMNLEVTVARDYLSPLVADLAQRRGNIQEIQTRQDNKVVIGFVPLAEIMGYSTVLRLTL
 SGSATFALELSTYQAMNPQDQNTLLNRRSGLT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_170691

ORF Size: 2196 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.

RefSeq: [NM_170691.3](#)

RefSeq Size: 2970 bp

RefSeq ORF: 2199 bp

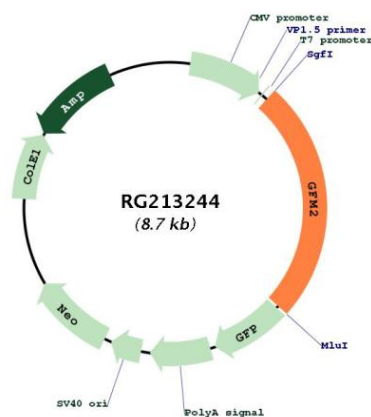
Locus ID: 84340

UniProt ID: [Q969S9](#)

Cytogenetics: 5q13.3

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 RG213244