

Product datasheet for **SC104725**

GFM2 (NM_032380) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GFM2 (NM_032380) Human Untagged Clone
Tag:	Tag Free
Symbol:	GFM2
Synonyms:	EF-G2mt; EFG2; hEFG2; mEF-G 2; MRRF2; MST027; MSTP027; RRF; RRF2; RRF2mt
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC104725 sequence for NM_032380 edited (data generated by NextGen Sequencing)

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ATGTTGACCAACTTGAGGATATTTGCAATGAGTCATCAGACAATACCCAGTGTGTATATT
AATAATATATGCTGCTATAAAATAAGAGCAAGTTTAAAAAGATTAAAGCCACATGTGCCG
CTTGGAAGAAATTGCAGTTCTCTACCAGGCTTAATAGGAAATGATATCAAATCCCTTCAT
TCCATCATCAATCCTCCCATAGCTAAAAATCCGTAATATTGGAATTATGGCTCATATTGAT
GCAGGCAAACTACCACCACAGAAAGAATATTGTACTATTCGGATATACAAGATCACTG
GGAGATGTTGATGATGGAGACACAGTGACAGATTTCATGGCCCAAGAGCGAGAAAGAGGC
ATTACTATTCAATCAGCTGCTGTTACATTTGATTGGAAAGGTTATAGAGTCAATCTAATT
GATACACCAGGTCATGTGGACTTTACCTTGAGGTTGAGCGGTGCCTAAGAGTGTGGAT
GGTGCAGTGGCTGTATTTGATGCCTCTGCTGGTGTAGAGGCCAGACTCTCACAGTATGG
AGGCAAGCTGATAAACACAATATACCTCGAATCTGTTTTTAAACAAGATGGACAAAAT
GGAGCAAGCTTTAAGTATGCAGTTGAAAGCATCAGAGAGAAGTTAAAGGCAAAGCCTTTG
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CTCTTGGAATGAATGATCCTGAATTGCTGAAGGAAACAATGAAGCAAGGAATGCCTTA
ATTGAACAAGTTGCAGATTTGGATGATGAATTTGCTGACTTGGTTTTAGAAGAATTTAGT
GAGAATTTTGATTGTTACCAGCTGAAAAGCTACAGACTGCAATACATAGAGTGACACTA
GCTCAGACAGCAGTGCCTGTGCTTTGTGGAAGTGCCCTGAAAAACAAAGGATACAGCCC
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CAGTGGTATAAGGATGACTTATGTGCATTGGCATTAAAGTTCTCCATGACAAGCAGCGA
GGACCACTGGTTTTATGCGCATTACTCAGGCACTATAAAACCCAGTTGGCCATTTCAT
AATATTAATGGAACCTGCACGGAGAGAATAAGTCGTCTGCTTTTGCCGTTTGCTGACCAA
CATGTAGAAAATCCCTTCATTGACTGCTGTAACATTGCTTTGACTGTTGGGCTTAAACAT
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CAGGTGGCATATCGAGAGACCATCCTAACTCAGTTTCGTGCCACAGATACCTTAGATAGA
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CTTGGATCCCCAATTGAGGATGTAGCAATTACTTTACATTCCTGACAATTCATCCTGGC
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CTCAGCCCTGCTCTGGCAGATCTGGCACAAGAAGAGGAAACATTCAGGAAATTCAGACT
CGCCAGGACAACAAAGTTGTTATTGGATTGTTCCCTTAGCAGAAATTATGGGTTATTCA
ACTGTGCTTCGAACGCTAACATCAGGCTCAGCTACTTTTGCCTTAGAACTATCTACTTAT
CAAGCCATGAATCCTCAAGATCAAAATACACTGCTCAACCGGAGAAGTGGTTTGACCTAA

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Clone variation with respect to NM_032380.3

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_032380 unedited
 TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCGCCGGAAGTGTG
 GAGGTGTGGCTGCCCCGAGGCGGTAGAGCGGAGAAAGCCTATTTTCTTTTCGTTTAGATAC
 ATTGCCTTTTGCCTAGGCTGGCGTCGAGACTTGAGGCCGTTGCAGACTTTGGCGCGGCTC
 GCGCCTCTGCTTCAAGAGCCCAGCGGTGAGAGCTGGCCTGCGGCACGCGGCCTAATGCC
 AGACAGTAACAGTTTGGAGGATCAAGATGTTGACCAACTTGAGGATATTTGCAATGAGTC
 ATCAGACAATACCCAGTGTGTATTAATAATATATGCTGCTATAAAATAGAGCAAGTT
 TAAAAAGATTAAAGCCACATGTGCCGCTTGGAAGAAATTGCAGTTCTCTACGAGCTTAA
 TAGGAAATGATATCAAATCCCTTCATTCCATCATCAGTCTCCCATAGCTAAAAATCCGTA
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 ACTATTCGGATATACAAGATCACTGGGAGATGTTGATGATGGAGACACAGTGACAGATT
 TCATGGCCCAAGAGCGAGAAAGAGGCATTACTATTCAATCAGCTGCTGTTACATTTGATT
 GGAAAGGTTATAGAGTCAATCTAATTGATACACCAGNTCATGTGGACTTTACTTTGGGAGG
 GTGAGCGGTGCCTAAAAATGNTNGATGGNNGCANTGGCTGTATTTGATGCTCTGCTGTNGT
 ANAGGCCAGACTCTCCAGTNATGGAGGCAGCTGATAACACATATACCTCGAATCTGTTTT
 TAAACAGATGGACANACTGGAGCGNCTTTANNTATGCAGNTGAAGCTCNANAAAA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_032380 unedited
 TGGCCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTGAATAAAA
 TATTTTTATTGATTGAACCTTTGACCCTCTATCTTATTACATTTAGAGGCTGGCATCTT
 TCTTGTGAGACAAGCTTAAGGACACAAAAGAAACACAACCTTTGTGATACCACTCTTCTGA
 AGGCTACTTATAGTAATAACTTCATAGATGAACAGCATGGAATTAGGTACAGTGGCTTTA
 AACATCAAAGCACATTTCTCATTATATAAATTAAACGGGTGGCTCCAGTGCCACTATCA
 AAGCTTAAGTTATATTCTTTTATCTAGTTCTCTGAATGTACTGAAACAGTACTTTATTCTG
 TCCATAAATAAGCAATANAAATTGGTCTTACTGAAATGAAGTAGCTAGGTGCTCCTGA
 AATTCTCTCCAAAACTAAACATTTAGGTCAAACCACTTNCCTGGTTGAGCAGTGTAT
 TTTGATCTTGAGGATTCATGGCTTGATAAGTAGATAGTNCTTAAGCAAAAGTAGCTGAGC
 CTGAATGTAGCGTTTCGAGCACAGTTGAATAACCCATAATTTCTGCTAGGGAACAAATNNC
 ATACAACCTTTGTGTCTGGCGAGTCTGAATTTCTGAATGGTTTCTCTCTTTTGTGTC
 ANAATCTGCCANGAACAGGGCTGAAATAATCTTTGCTACTGAACCTCAAGATCATCAGA
 GGCTCAAAACTTGTATCAGCTTCTTTAAACTTTTGCCGATTTTGGAACCAAGCAGATT
 ATAGTGTGAAGGCCAGATGAATGGCAGGAATGAAATAATTGGTCATCTGGATGGGGATC
 CACCATGGTCTGGAAATGCCCTGGATTATTTTCATGGCTCTGGGAACTTAAGGCTTT
 TGTACTTAAATACAATACGGCTAAAAGAGGTTAATGGCTGTTCTTAAGACAAAGCTTT
 GTTCTAATTATTAGGTTGGG

Restriction Sites:

NotI-NotI

ACCN:

NM_032380

Insert Size:

3110 bp

OTI Disclaimer:

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).

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:	<u>NM_032380.3, NP_115756.2</u>
RefSeq Size:	3111 bp
RefSeq ORF:	2340 bp
Locus ID:	84340
UniProt ID:	<u>Q969S9</u>
Cytogenetics:	5q13.3
Domains:	EFG_C, GTP_EFTU, GTP_EFTU_D2, EFG_IV
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] Transcript Variant: This variant (1) lacks an alternate exon in the 5' coding region and initiates translation at a downstream start codon, compared to variant 4. It encodes isoform 1 which is shorter at the N-terminus, compared to isoform 4.