

## Product datasheet for **RC208239**

### **GFM1 (NM\_024996) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GFM1 (NM_024996) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GFM1
Synonyms:	COXPD1; EFG; EFG1; EFGM; EGF1; GFM; hEFG1; mtEF-G1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC208239 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGACTCCTGGGAGCTGCAGCCGTCGCGGCTCTGGGGCGCGGAAGGGCCCCCGCTCCCTAGGCTGGC  
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 AAATATTGGAATCTCAGCTCACATTGATTCTGGGAAAACACATTAACAGAACGAGTCCTTTACTACACT  
 GGCAGAATTGCAAAGATGCATGAGGTGAAAGTAAAGTGGAGTTGGTGTGTCATGGATTCCATGGAAC  
 TAGAGAGACAAAGAGGAATCACTATTCAGTCAGCAGCCACTTACACCATGTGGAAGATGTCAATATTAA  
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 ACTGAACCTTAGGTCATGCACAGAGGAAAGGGAGAATACACAATGGAGTATAGCAGGTATCAGCCATGTT  
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 AAAAGCCAAGAAC

**AGCGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
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**Protein Sequence:** >RC208239 protein sequence  
Red=Cloning site Green=Tags(s)

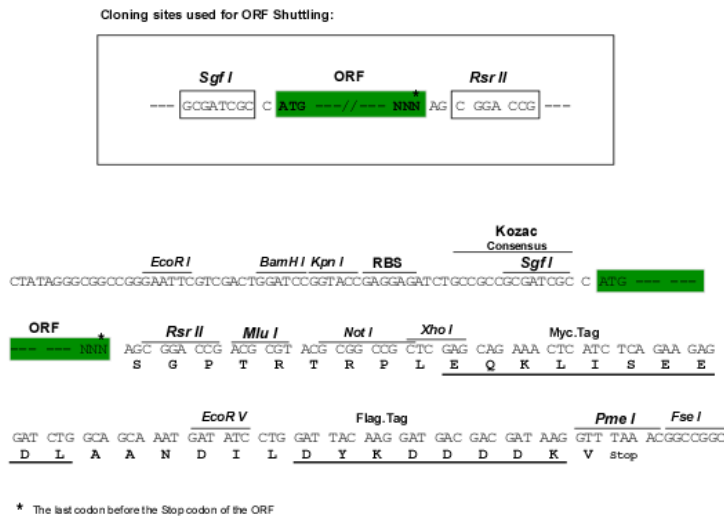
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AVLVLCVAGGVQCQTMTVNRQMKRYNVPFLTFINKLDRMGSNPARALQQMRSKLNHNAAFMQIPMGLEGN
FKGIVDLIEERAIYFDGDFGQIVRYGEIPAELRAAATDHRQELIECVANSDEQLGEMFLEEKIPISIDLK
LAIRRATLKRSFTPVFLGSALKNKGVQPLLDAVLEYLPNPSEVQNYAILNKEDDSKEKTKILMNSSRDNS
HPFVGLAFKLEVGRFGQLTYVRSYQGELKKGDTIYNTRTRKKVRLQRLARMHADMMEDVEEVYAGDICAL
FGIDCASGDTFTDKANSGLSMESIHPDPVISIAMKPSNKNLLEKFSKGIGRFTREDPTFKVYFDTENKE
TVISGMGELHLEIYAQRLEREYGCPCITGPKVAFRETITAPVPDFDFTHKKQSGGAGQYGVKIGVLEPLD
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EGALKQALANATLCILEPIMAVEVVAPNEFQGGQVIAGINRRHGVI TGDGVEDYFTLYADVPLNDMFGYS
TELRSCTEGKGEYTMESRYQPCLPSTQEDVINKYLEATGQLPVKKGKAKN
```

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6623\\_f06.zip](https://cdn.origene.com/chromatograms/mk6623_f06.zip)

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**ACCN:** NM\_024996

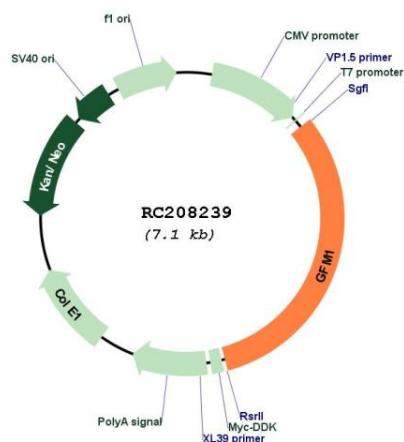
**ORF Size:** 2253 bp

**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](#)

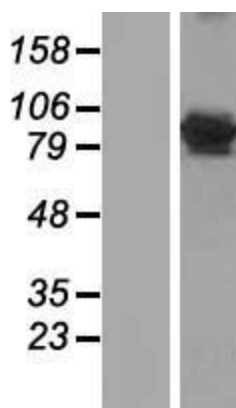
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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).
<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_024996.7</a>
<b>RefSeq Size:</b>	3468 bp
<b>RefSeq ORF:</b>	2256 bp
<b>Locus ID:</b>	85476
<b>UniProt ID:</b>	<a href="#">Q96RP9</a>
<b>Cytogenetics:</b>	3q25.32
<b>Domains:</b>	EFG_C, GTP_EFTU, GTP_EFTU_D2, EFG_IV
<b>MW:</b>	83.5 kDa
<b>Gene Summary:</b>	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. Its role in the regulation of normal mitochondrial function and in different disease states attributed to mitochondrial dysfunction is not known. [provided by RefSeq, Jul 2008]

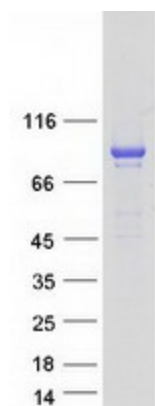
Product images:



Circular map for RC208239



Western blot validation of overexpression lysate (Cat# [LY410910]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208239 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GFM1 protein (Cat# [TP308239]). The protein was produced from HEK293T cells transfected with GFM1 cDNA clone (Cat# RC208239) using MegaTran 2.0 (Cat# [TT210002]).