

## Product datasheet for **RG217416**

### NFU1 (NM\_015700) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NFU1 (NM_015700) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NFU1
Synonyms:	CGI-33; HIRIP; HIRIP5; MMDS1; Nfu; NifU; NIFUC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG217416 representing NM_015700 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGCGACGGCCAGGCGGGGCTGGGGAGCTGCGGCTGTTGCCCGGGCTGCGCAGGCGGTTCTGTC  
ATATGTTGAAGAATCCATACACCATTAAGAAACAGCCTCTGCATCAGTTTGTACAAAGACCACTTTTCCC  
ACTACCTGCAGCCTTTTATCACCCAGTGAGATACATGTTTATTCAAACACAAGATACCCCAAATCCAAAC  
AGCTTAAAGTTTATACCAGGAAAACAGTCTTGAGACAAGGACCATGGATTTTCCACCCAGCTGCAG  
CATTTTCGCTCCCCTCTGGCTAGGCAGTTATTTAGGATTGAAGGAGTAAAAAGTGTCTTCTTTGGACCAGA  
TTTCATCACTGTCAAAAGGAAAATGAAGAATTAGACTGGAATTTACTGAAACCAGATATTTATGCAACA  
ATCATGGACTTCTTTGCATCTGGCTTACCCTGGTTACTGAGGAAACACCTTCAGGAGAAGCAGGATCTG  
AAGAAGATGATGAAGTTGTGGCAATGATTAAGGAATTGTTAGATACTAGAATACGGCCAACCTGTGCAGGA  
AGATGGAGGGGATGTAATCTACAAAGGCTTTGAAGATGGCATTGTACAGCTGAACTCCAGGGTTCTTGT  
ACCAGCTGCCCTAGTTCAATCATTACTCTGAAAAATGGAATTCAGAACATGCTGCAGTTTATATTTCCGG  
AGGTAGAAGGCGTAGAACAGGTTATGGATGATGAATCAGATGAAAAAGAAGCAAACCTCACCT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG217416 representing NM\_015700  
Red=Cloning site Green=Tags(s)

MAATARRGWGAAVAAGLRRRFCHMLKNPYTIKKQPLHQFVQRPLFPLPAAFYHPVRYMFIQTQDTPNPN  
 SLKFIPGKPVLETRTMDFPTPAAAFRSPLARQLFRIEGVKS VFFGPDFITVTKENEELDNLLKPDYAT  
 IMDFFASGLPLVTEETPSGEAGSEEDDEVVAMIKELLDTRIRPTVQEDGGDVIYKGFEDGIVQLKLGSC  
 TSCPSSIITLKNGIQNMLQFYIPEVEGVEQVMDDDESDEKEANSP

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_015700

**ORF Size:** 765 bp

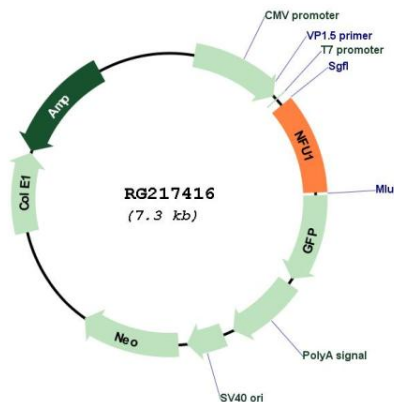
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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>	<u><a href="#">NM_015700.2</a></u> , <u><a href="#">NP_056515.2</a></u>
<b>RefSeq Size:</b>	1194 bp
<b>RefSeq ORF:</b>	693 bp
<b>Locus ID:</b>	27247
<b>UniProt ID:</b>	<u><a href="#">Q9UMS0</a></u>
<b>Cytogenetics:</b>	2p13.3
<b>Domains:</b>	NifU-like
<b>Gene Summary:</b>	This gene encodes a protein that is localized to mitochondria and plays a critical role in iron-sulfur cluster biogenesis. The encoded protein assembles and transfers 4Fe-4S clusters to target apoproteins including succinate dehydrogenase and lipoic acid synthase. Mutations in this gene are a cause of multiple mitochondrial dysfunctions syndrome-1, and pseudogenes of this gene are located on the short arms of chromosomes 1 and 3. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Dec 2011]

### Product images:



Circular map for RG217416