

Product datasheet for **SC300439**

NFU1 (NM_001002755) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NFU1 (NM_001002755) Human Untagged Clone
Tag:	Tag Free
Symbol:	NFU1
Synonyms:	CGI-33; HIRIP; HIRIP5; MMDS1; Nfu; NifU; NIFUC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC300439 representing NM_001002755. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
 GATCCGGTACCGAGGAGATCTGCCGCC**GCGATCGCC**
 ATGGCGGCGACGGCCAGGCGGGGCTGGGAGCTGCGGCTGTTGCCCGGGCTGCGCAGGCGGTTCTGT
 CATATGTTGAAGAATCCATACACCATTAAAGAAACAGCCTCTGCATCAGTTTGTACAAAGACCACTTTTC
 CCACTACCTGCAGCCTTTTATCACCCAGTGAGATACATGTTTATTCAAACACAAGATACCCCAAATCCA
 AACAGCTTAAAGTTTATACCAGGAAAACAGTTCTTGAGACAAGGACCATGGATTTTCCACCCAGCT
 GCAGATTTTCGTCCTCTGGCTAGGCAGTTATTTAGGATTGAAGGAGTAAAAAGTGCTTCTTTGGA
 CCAGATTTTCATCACTGTCAAAAGGAAAATGAAGAATTAGACTGGAATTTACTGAAACAGATATTTAT
 GCAACAATCATGGACTTCTTTGCATCTGGCTTACCCCTGGTTACTGAGGAAACACCTTCAGGAGAAGCA
 GGATCTGAAGAAGATGATGAAGTTGTGGCAATGATTAAGGAATTGTTAGATACTAGAATACGGCCAACT
 GTGCAGGAAGATGGAGGGGATGTAATCTACAAAGGCTTTGAAGATGGCATTGTACAGCTGAAACTCCAG
 GGTTCTTGTACCAGCTGCCCTAGTTCAATCACTCTGAAAAATGGAATTCAGAACATGCTGCAGTTT
 TATATCCGGAGGTAGAAGGCGTAGAACAGTTATGGATGATGAATCAGATGAAAAAGAAGCAAACCTCA
 CCT**TAA**
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	SgfI-MluI
ACCN:	NM_001002755
Insert Size:	765 bp


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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 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001002755.2](#)

RefSeq Size: 1104 bp

RefSeq ORF: 765 bp

Locus ID: 27247

UniProt ID: [Q9UMS0](#)

Cytogenetics: 2p13.3

MW: 28.5 kDa

Gene Summary:

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]

Transcript Variant: This variant (2) differs in the 5' UTR and uses an upstream, in-frame start codon, compared to variant 1. The encoded isoform (2) has a longer N-terminus, compared to isoform 1.