

Product datasheet for **RC202313**

AFG1L (NM_145315) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AFG1L (NM_145315) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AFG1L
Synonyms:	AFG1; c222389; LACE1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC202313 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGCCTCCTGGTCGCTCTGGTTACCTGCGCCCTTAGCACAGAGCCCGCTGAGAGGGAGATGTG
 TTGGGTGCGGGGCTGGGCCGCCCTCTCGCTCCTTGCCACCGCCCTGGGAAGCCCTTTGGAAAGC
 CTATACGGTTCAGACATCCGAGAGCATGACCCAACTGCCACTTCAGAGACTTATTTGAAAGCTTTGGCC
 GTTTGCCATGGACCTCTGGACCACTATGATTTTCTGATCAAAGCTCATGAGCTAAAGGATGATGAACATC
 AAAGAAGAGTCATACAGTGTTCGAGAAATTACACGAGGACCTAAAGGATACAATATAGAGGCAGAAGG
 CCTTTTTTCAAAGCTTTTTTCAAGGAGCAAACCTCAAGGGCCTGTATGTTTATGGAGATGTTGGTACA
 GGAAAAACAATGGTGATGGACATGTTTTATGCTTATGTGAAATGAAGAGGAAAAACGGGTTCAATTTTC
 ATGGTTTCATGCTAGATGTGCACAAAAGAATACATCGCCTTAAACAGAGTTTGCCAAAAAGGAAACCAGG
 ATTCATGGCTAAATCATATGACCAATAGCTCCCATAGCCGAAGAAATCAGCGAAGAAGCATGTCTCCTA
 TGTTTTGATGAATTTAGGTCACATGACATTGCTGATGCCATGATTCTGAAACAGCTTTTTGAAAATCTGT
 TCAAAAACGGGGTCGTCGTTGTGGCAACATCCAACAGGCCACCGGAAGATCTCTATAAAAATGGACTCCA
 AAGAGCTAACTTTGTACCATTATAGCAGTCTTGAAGGAATATTGTAATACAGTCCAGCTAGATTCTGGG
 ATAGATTACCGGAAAAGGAACTTCTGCTGCAGGAAAACCTACTACCTCACAAGTGAAGCTGATGTGG
 AGGCTGTCATGGATAAGTTGTTTGTAGAGCTGGCTCAGAAACAAAATGATTTAAGTACAGCAAGGATTCT
 AAAAGTCAAGGCAGAGAGCTGCGCCTGAATAAAGCCTGTGGAACCGTTGCCGACTGCACATTTGAAGAG
 CTGTGTGAGAGACCCTGGAGCCAGTACTATTTGGAATCAAGAATTTTGATACAATATTTTAC
 GAAACATTCGCAATTTACTCTGGCAAACAGGACTCAAGTCAAGATTCAACTCTCATCGAACTT
 TTATGATCTCAAGGTGCGTATAATTTGCTCTGCTCGACTCCTATATCAAGCTTATTTTTGCATCAACAT
 CATGACAGTGAGTTGGAGCAAAGCAGAATACTGATGGATGATTTGGGGCTGAGCCAGGATTCAGCAGAAG
 GACTCTCCATGTTTACCGGAGAAGAGGAAATCTTTCATTTACGCGCACAATTTCCCGACTCACGGAAT
 GCAGACTGAACAGTACTGGAATGAAGGAGACAGAACCAAGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202313 protein sequence
 Red=Cloning site Green=Tags(s)

MAASWSLLVTLRPLAQSPLRGRCVCGAWAAALPLATAPGKPFWKAYTVQTSSEMTPTATSETYLKALA
 VCHGPLDHYDFLIKAEHLKDDEHQRRVIQCLQKLHEDLKGYNIEAELFSKLFSRSKPPRGLVYVGDVGT
 GKTMVMDMFYAYVEMKRKRKRVHFGFMLDVHKRIHRLKQSLPKRKPFGMAKSYDPIAPIAEEISEEACLL
 CFDEFQVTDIADAMILKQLFENLFKNGVVVATSNRPEDLYKNGLQRANFVPIAVLKEYCNTVQLDSG
 IDYRKRELPAAGKLYLTSADVEAVMDKLFDELAQKQNDLTRPRILKVQGRELRLNKACGTVADCTFEE
 LCERPLGASDYLELKNFDTIFLRNIPQFTLANRTQGRRFITLIDNFYDLKVRIICSASTPISSFLHQH
 HDSELEQSRILMDDLGLSQDSAEGLSMFTGEEEIFAFQRTISRLTEMQTEQYWNEGDRTKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6092_c08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_145315

ORF Size: 1443 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_145315.5](#)

RefSeq Size: 2262 bp

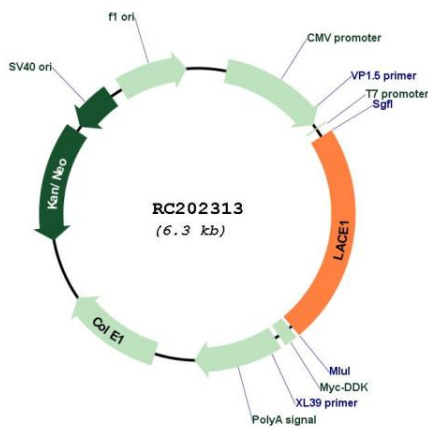
RefSeq ORF: 1446 bp

Locus ID: 246269

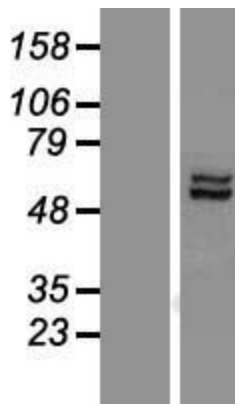
UniProt ID: [Q8WV93](#)
 Cytogenetics: 6q21
 MW: 54.8 kDa

Gene Summary: This gene encodes a mitochondrial integral membrane protein that plays a role in mitochondrial protein homeostasis. The protein contains a P-loop motif and a five-domain structure that is conserved in fly, yeast, and bacteria. It functions to mediate the degradation of nuclear-encoded complex IV subunits. Two conserved estrogen receptor binding sites are located within 2.5 kb of this gene. Polymorphisms in this gene have been associated with bipolar disorder. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2016]

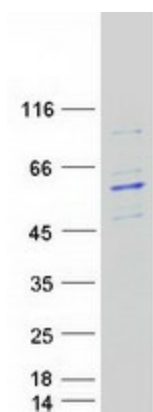
Product images:



Circular map for RC202313



Western blot validation of overexpression lysate (Cat# [LY407962]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202313 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AFG1L protein (Cat# [TP302313]). The protein was produced from HEK293T cells transfected with AFG1L cDNA clone (Cat# RC202313) using MegaTran 2.0 (Cat# [TT210002]).