

Product datasheet for RC225467

AIF (AIFM1) (NM_001130847) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AIF (AIFM1) (NM_001130847) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AIF
Synonyms:	AIF; AUNX1; CMT2D; CMTX4; COWCK; COXPD6; DFNX5; NADMR; NAMSD; PDCD8; SEMDHL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC225467 representing NM_001130847 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTCCGGTGTGGAGGCCTGGCGCGGGTGCTTTGAAGCAGAAGCTGGTGCCCTTGGTGGGACCGTGT
GCGTCCGAAGCCCGAGGCAGAGGAACCGGCTCCAGGCAACTTGTCCAGCGATGGCATGTTCTCTAGA
ACTCCAGATGACAAGACAAATGGCTAGCTCTGGTGCATCAGGGGGCAAAATCGATAATTCTGTGTTAGTC
CTTATTGTGGCTTATCAACAGTAGGAGCTGGTGCCTATGCCTACAAGACTATGAAAGAGGATGAAAAA
GATACAATGAAAGAATTTAGGGTTAGGGCTGACACCAGAACAGAAAAGGCCGCGTTATCTGC
TTCAGAAGGAGAGGAAGTTCCTCAAGACAAGGCGCCAAGTCATGTTCTTCTGCTAATTGGTGGAGGC
ACAGCTGCTTTTCTGTCAGCCAGATCCATCCGGGCTCGGGATCCTGGGGCCAGGGTACTGATTGTATCTG
AAGATCCTGAGCTGCCGTACATGCGACCTCCTCTTTCAAAGAAGTGTGGTTTTTCAGATGACCCAAATGT
CACAAAGACACTGCGATTCAAACAGTGAATGGAAAAGAGAGAAGCATATATTTCCAGCCACCTTCTTTC
TATGCTCTGCTCAGGACCTGCCTCATATTGAGAATGGTGGTGTGGCTGTCTCACTGGGAAGAAGGTAG
TACAGCTGGATGTGAGAGACAACATGGTGAACCTAATGATGGCTCTCAAATAACCTATGAAAAGTGCTT
GATTGCAACAGGAGGTAAGTCAAGAAGTCTGTCTGCCATTGATAGGGCTGGAGCAGAGGTGAAGAGTAGA
ACAACGCTTTTTCAGAAAGATTGGAGACTTTAGAAGCTTGGAGAAGATTTACGGGAAGTCAAATCAATTA
CGATTATCGGTGGGGCTTCTTGGTAGCGAACTGGCCTGTGCTTTGGCAGAAAAGGATATA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC225467 representing NM_001130847
Red=Cloning site Green=Tags(s)

MFRCGGLAAGALKQKL VPLVRTVCVRSRQRNRLPGNLFQRWHVPLELQMRQMASSGASGGKIDNSVLV
 LIVGLSTVGAGAYAYKTMKEDEKRYNERISGLGLTPEQKQKKAALSASEGEEVPQDKAPSHVPFLFIGGG
 TAAFAAARSIRARDPGARVLIVSEDPPELPMRPPLSKELWFSDDPNVTKLRFKQWNGKERSIYFQPPSF
 YVSAQDLPHIENGGVAVLTGKKVVQLDVRDNMVKLNDSQITIEKCLIIATGGTPRSLSAIDRAGAIEVKS
 TTLFRKIGDFRSLEKISREVKSIITIIIGGFLGSELAACALGRKDI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8052_c04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001130847

ORF Size: 972 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.

RefSeq: [NM_001130847.3](#), [NP_001124319.1](#)

RefSeq ORF: 975 bp

Locus ID: 9131

UniProt ID: [O95831](#)

Cytogenetics: Xq26.1

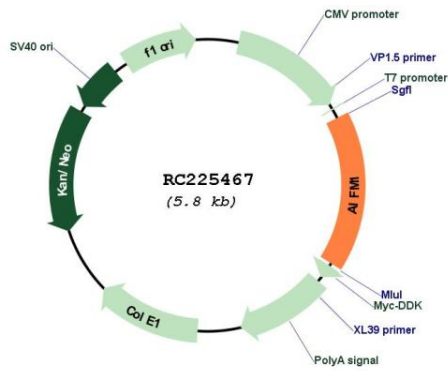
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Apoptosis

MW: 35.2 kDa

Gene Summary: This gene encodes a flavoprotein essential for nuclear disassembly in apoptotic cells, and it is found in the mitochondrial intermembrane space in healthy cells. Induction of apoptosis results in the translocation of this protein to the nucleus where it affects chromosome condensation and fragmentation. In addition, this gene product induces mitochondria to release the apoptogenic proteins cytochrome c and caspase-9. Mutations in this gene cause combined oxidative phosphorylation deficiency 6 (COXPD6), a severe mitochondrial encephalomyopathy, as well as Cowchock syndrome, also known as X-linked recessive Charcot-Marie-Tooth disease-4 (CMTX-4), a disorder resulting in neuropathy, and axonal and motor-sensory defects with deafness and cognitive disability. Alternative splicing results in multiple transcript variants. A related pseudogene has been identified on chromosome 10. [provided by RefSeq, Aug 2015]

Product images:



Circular map for RC225467