

Product datasheet for **MR224344**

Aifm1 (NM_012019) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aifm1 (NM_012019) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aifm1
Synonyms:	AIF; AIFsh2; Hq; Pdcd8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR224344 representing NM_012019
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTCCGGTGTGGAGGCTGGCGGGTCTTTCAAGCAGAACTGGTGCCCTTGGTGCAGCGGTGTACG
 TCCAGAGGCCGAAACAGAGGAACCGCTTCCAGGCAACTGTTCCAGCAATGGCGTGTTCCTCTAGAACT
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR224344 representing NM_012019
 Red=Cloning site Green=Tags(s)

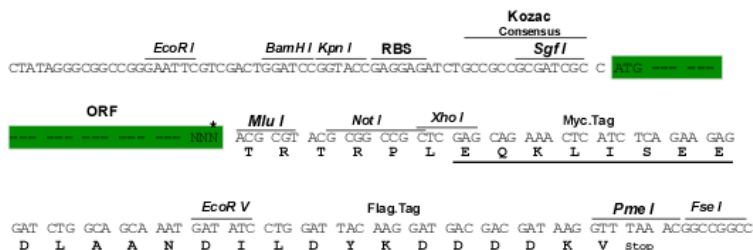
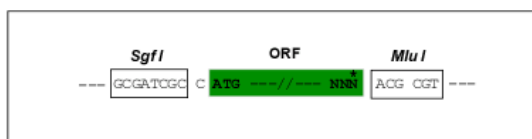
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 IVGLSTIGAGAYAYKTIKEDQKRYNERVMGLGLSPEEKQRRAIASATEGGSVPIRAPSHVPFLLIGGGT
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 RVNAELQARSNIWVAGDAACFYDIKLRRRVEHHDHAVVSGRLAGENMTGAAKPYWHQSMFWSDLGPDVG
 YEAIGLVDSSLPTVGVFAKATAQDNPKSATEQSGTGIRSESESESEITIPPSAPAVPQVPVEGEDYD
 KGVIFYLKRVVGVIVLWNVFNRMPIARKIIKDGEQHEDLNEVAKLFNIHED

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_012019

ORF Size: 1836 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 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.

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).

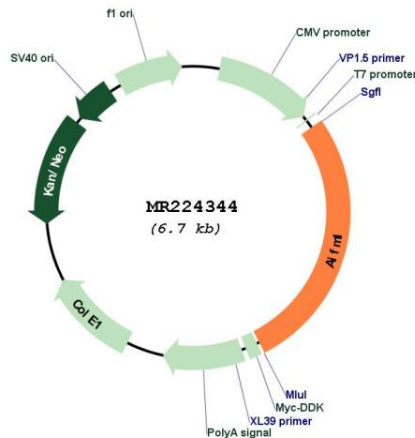
Reconstitution Method:

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_012019.3, NP_036149.1](#)
RefSeq Size: 2115 bp
RefSeq ORF: 1839 bp
Locus ID: 26926
UniProt ID: [Q9Z0X1](#)
Cytogenetics: X 25.68 cM
MW: 67.2 kDa

Gene Summary: Functions both as NADH oxidoreductase and as regulator of apoptosis. In response to apoptotic stimuli, it is released from the mitochondrion intermembrane space into the cytosol and to the nucleus, where it functions as a proapoptotic factor in a caspase-independent pathway. In contrast, functions as an antiapoptotic factor in normal mitochondria via its NADH oxidoreductase activity. The soluble form (AIFsol) found in the nucleus induces 'parthanatos' i.e. caspase-independent fragmentation of chromosomal DNA. Interacts with EIF3G, and thereby inhibits the EIF3 machinery and protein synthesis, and activates caspase-7 to amplify apoptosis. Plays a critical role in caspase-independent, pyknotic cell death in hydrogen peroxide-exposed cells. Binds to DNA in a sequence-independent manner (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR224344