

Product datasheet for **MG224344**

Aifm1 (NM_012019) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aifm1 (NM_012019) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Aifm1
Synonyms:	AIF; AIFsh2; Hq; Pdcd8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG224344 representing NM_012019
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTCCGGTGTGGAGGCTGGCGGGTCTTTCAAGCAGAACTGGTGCCCTTGGTGCGGACGGTGTACG
 TCCAGAGGCCGAAACAGAGGAACCGCTTCCAGGCAACTTGTCCAGCAATGGCGTGTCCCTCTAGA
 CCAGATGGCAAGACAAATGGCTAGCTCTGGTTCATCAGGGGGCAAAATGGATAATTCTGTGTTAGTCTT
 ATTGTGGGCTTATCAACAATAGGAGCTGGTGCATATGCCTACAAAATAAAAAGAAGACAAAAAAGAT
 ACAATGAAAGAGTGATGGGATTAGGACTGTCCCCAGAAGAGAAACAGAGAAGAGCCATTGCCTCCGTAC
 AGAGGGAGGCTCAGTTCCTCAGATCAGGGCACCAAGTACGTCCCTTCTGCTGATTGGTGAGGGGACT
 GCTGCTTTGCAGCAGCCAGATCCATCCGGCTCGGGATCCTGGGGCCAGGGTCTGATTGTATCTGAAG
 ACCCTGAACTGCCATACATGCGACCTCCTTTTAAAAGAATTGTGGTTTTCAGATGATCCAAATGTCAC
 AAAGACTGCAATTCAGACAGTGAATGGAAAAGAGAGAAGCATATATTCCAGCCACCTCTTTCTAT
 GTCTCTGCTCAGGACCTGCCTAATATTGAGAACGGTGGTGTGGCTGTCCCTACTGGGAAAAAGGTAGTAC
 ATCTGGATGTAAGAGGCAACATGGTGAACTTAATGATGGCTCTCAGATTACCTTTGAAAAGTGCTTGT
 TGCAACGGGAGGCACTCCAAGAAGTCTGTCTGCCATCGATAGGGCTGGAGCAGAGGTGAAGAGTAGAACA
 ACACCTTTTCAGGAAGATTGGAGATTTTAGAGCCTTGAGAGAAGATCTCTCGGGAGGTCAAGTCAATTACAG
 TTATCGGCGGGGCTTCTTTGGGAGTGAGCTGGCTGTGCTCTTGGCAGAAAAGTCAAGCTCGGGCAT
 AGAAGTGATCCAGCTGTTCCCTGAGAAAAGGAAATATGGGAAGATCCTTCTCAATACCTCAGCAACTGG
 ACCATGGAAAAAGTCAAACGAGAGGGAGTGAAAGTGATGCCAATGCAATTGTACAATCAGTTGGAGTCA
 CGGCTGGCAGGTTACTCATTAAAGCTGAAAGATGGAAGGAAGGTAGAAAAGTACCACATAGTGACAGCTGT
 GGGCTAGAGCCCAATGTTGAGTTGGCCAAGACTGGCGGACTGGAAATAGATTCCGATTTTGGTGGCTTC
 CGGGTAAATGCAGAACTCCAAGCACGTTCTAACATCTGGGTGGCAGGGGATGCTGCATGCTTCTATGATA
 TAAAGTTGGTTCGAAGGCGAGTAGAGCATCATGATCATGCTGTTGTGAGTGGAAGACTGGCTGGAGAAAA
 CATGACTGGAGCCGCTAAGCCACTGGCATCAGTCAATGTTCTGGAGTGATTTGGGCTCTGATGTCGGC
 TATGAAGCTATTGGTCTGGTGGATAGTAGTTTCCACAGTTGGTGTGTTTTGCAAAAGCAACTGCACAAG
 ACAACCCAAAATCTGCCACAGAGCAGTCCAGAACTGGTATCCGTTCCGAGAGTGAGACAGAGTCAAGAGC
 TTCGAAATCACAAATTCCTCCAGCGCCCTGCAGTCCACAGGTCCTGTTGAAGGGGAGGACTACGGC
 AAAGGTGTCATCTTCTACCTCAGGGACAAAGTTGTGGTGGGATGTGCTATGGAACGTCTTAACCGAA
 TGCCAATTGCAAGGAAGATCATTAAAGACGGTGAGCAACATGAAGATCTCAATGAAGTAGCTAAACTCTT
 CAACATTCATGAAGAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG224344 representing NM_012019
 Red=Cloning site Green=Tags(s)

MFRCGGLAGAFKQKLVPLVRTVYVQRPKQRNRLPGNLFQQRVPLELQMARQMASSGSSGGKMDNSVLVL
 IVGLSTIGAGAYAYKTIKEDQKRYNERVMGLGLSPEEKQRRAIASATEGGSVPIRAPSHVPFLIIGGGT
 AFAAARSIRARDPGARVLIVSEDPPELPMRPPLSKELWFSDPNVTKLQFRQWNGKERSIYFQPPSFY
 VSAQDLPLNIENGGVAVLTGKKVHLDVRGNMVKLNDGSQITFEKLIATGGTPRSLSAIDRAGAEVKSRT
 TLFKIGDFRALEKISREVKISITVIGGGFLGSELACALGRKSQASGIEVIQLFPEKGNMGKILPQYLSNW
 TMEKVKREGVKVMPNAIVQSVGVS GGRLLIKLDGRKVEDHIVTAVGLEPNVELAKTGGLEIDSDFGGF
 RVNAELQARSNIWVAGDAACFYDIKLGRRRVEHHDHAVVSGRLAGENMTGAAKPYWHQSMFWSDLGPDVG
 YEAIGLVDSSLPTVGVFAKATAQDNPKSATEQSGTGIRSESETESEASEITIPPSAPAVPQVPVEGEDYD
 KGVIYFLRDKVVVGVIVLWNVFNRMPIARKIIKDGEQHEDLNEVAKLFNIHED

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


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).

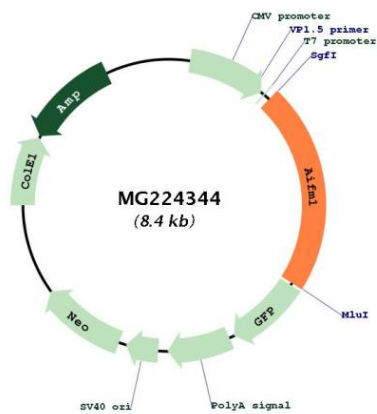
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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

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 casapse-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 MG224344