

## Product datasheet for **MR230666**

### **Aifm1 (NM\_001290364) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Aifm1 (NM_001290364) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aifm1
Synonyms:	AIF; AIFsh2; Hq; Pdcd8
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR230666 representing NM\_001290364  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTTCCGGTGTGGAGGCTGGCGGGTCTTTCAAGCAGAACTGGTGCCCTTGGTGCAGCGGTGTACG  
 TCCAGAGCCGAAACAGAGGAACCGCTTCCAGTTGTGCAGTGTATCTCTAGGATCCCCTTCTAGAAC  
 ACTAGCGTCTGCAGGTGCTTCTGGGAAAGATGGCAGCAGCCTAGTATACTTCTTAATTGTAGGAGCAACA  
 GTGACTGGGGCAGGAATTTATTATGCCTACAAAATAAAAAGAAGACAAAAAGATACAATGAAAGAG  
 TGATGGGATTAGGACTGTCCCAGAAGAGAAACAGAGAAGAGCCATTGCCTCCGCTACAGAGGGAGGCTC  
 AGTTCCTCAGATCAGGGCACCAAGTCACGTCCCTTCTGCTGATTGGTGGAGGGACTGCTGCTTTTGA  
 GCAGCCAGATCCATCCGGCTCGGGATCTGGGGCCAGGGTCTGATTGTATCTGAAGACCTGAAGTGC  
 CATACATGCGACCTCTCTTTAAAAGAATTGTGGTTTTAGATGATCCAATGTCACAAAGACACTGCA  
 ATTCAGACAGTGGAAATGAAAAGAGAGAAGCATATATTTCCAGCCACCTCTTTCTATGTCTCTGCTCAG  
 GACCTGCCTAATATTGAGAACGGTGGTGTGGCTGTCTACTGGGAAAAAGGTAGTACATCTGGATGTAA  
 GAGGCAACATGGTGAACTTAATGATGGCTCTCAGATTACCTTTGAAAAGTCTTGATTGCAACGGGAGG  
 CACTCCAAGAAGTCTGTCTGCCATCGATAGGGCTGGAGCAGAGGTGAAGAGTAGAACAACACTTTTCAGG  
 AAGATTGGAGATTTTAGAGCCTTGGAGAAGATCTCTCGGGAGGTCAAGTCAATTACAGTTATCGGCGGGG  
 GCTTCTTGGGAGTGAGCTGGCCTGTGCTCTTGGCAGAAAGTCTCAAGCCTCGGGCATAGAAGTGATCCA  
 GCTGTTCCCTGAGAAAGGAAATATGGGGAAGATCCTTCTCAATACCTCAGCAACTGGACCATGGAAAAA  
 GTCAAACGAGAGGGAGTGAAAGTGTGCCAATGCAATTGTACAATCAGTTGGAGTCAGCGGTGGCAGGT  
 TACTCATTAAAGCTGAAAAGATGGAAGGAAGGTAGAAAAGTACCACATAGTGACAGCTGTGGCCCTAGAGCC  
 CAATGTTGAGTTGGCCAAGACTGGCGGACTGGAATAGATTCCGATTTTGGTGGCTTCCGGGTAATGCA  
 GAACTCCAAGCACGTTCTAACATCTGGGTGGCAGGGGATGCTGCATGCTTCTATGATATAAAGTTGGGT  
 GAAGGCGAGTAGAGCATCATGATCATGCTGTTGTGAGTGGAAAGTGGCTGGAGAAAAACATGACTGGAGC  
 CGCTAAGCCATACTGGCATCAGTCAATGTTCTGGAGTATTTGGGTCTGATGTCGGCTATGAAGCTATT  
 GGTCTGGTGGATAGTAGTTTGGCCACAGTTGGTGTGTTTTGCAAAAGCAACTGCACAAGACAACCCAAAT  
 CTGCCACAGAGCAGTCAGGAAGTGTATCCGTTCCGAGAGTGAGACAGAGTCAGAAGCTTCGAAATCAC  
 AATTCCTCCAGCGCCCCTGCAGTCCCACAGTCCCTGTTGAAGGGGAGGACTACGGCAAAGGTGTCATC  
 TTCTACCTCAGGGACAAAGTTGTGGTGGGATTGTGCTATGGAACGTCTTAACCGAATGCCAATTGCAA  
 GGAAGATCATTAAGGACGGTGAACAACGAAGATCTCAATGAAGTAGCTAAACTCTTCAACATTATGA  
 AGAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230666 representing NM\_001290364  
 Red=Cloning site Green=Tags(s)

MFRCGGLAGAFKQKLVPLVVRTVYVQRPKQRNRLPVVQCHLLGSPSRTLASAGASGKDGSSLYVFLIVGAT  
 VTGAGIYYAYKTIKEDQKRYNERVMGLGLSPEEKQRRRAIASATEGGSVPQIRAPSHVPFLIIGGGTAAFA  
 AARSIRARDPGARVLIVSEDPPELPMRPPLSKELWFSDDPNVTKLQFRQWNGKERSIYFQPPSFYVSAQ  
 DLPNIENGGVAVLTGKKVVHLDVRGNMVKLNDGSQITFEKLIATGGTPRSLAIDRAGAIEVKSRTTLFR  
 KIGDFRALEKISREVKISITVIGGGFLGSELACALGRKSQASGIEVIQLFPEKGNMGKILPQYLSNWTMEK  
 VKREGVKVMPNAIVQSVGVSGGRLLIKLDGRKVEDTHIVTAVGLEPNVELAKTGGLEIDSDFGGFRVNA  
 ELQARSNIWVAGDAACFYDIKLRRRVEHHDHAVVSGRLAGENMTGAAKPYWHQSMFWSDLGPDVGYEAI  
 GLVDSSLPTVGVFAKATAQDNPKSATEQSGTGIRSESETESEASEITIPPSAPAVPQVPVEGEDYKGVIF  
 FYLRDKVVVIVLWNVFNRMPIARKI IKDGEQHEDLNEVAKLFNIHED

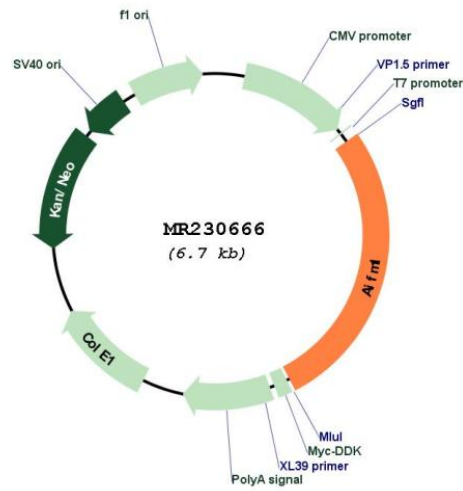
**TRTRP**LEQKLISEEDLAANDILDYKDDDDKVV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001290364

ORF Size: 1824 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001290364.1</a> , <a href="#">NP_001277293.1</a>
<b>RefSeq Size:</b>	2237 bp
<b>RefSeq ORF:</b>	1827 bp
<b>Locus ID:</b>	26926
<b>UniProt ID:</b>	<a href="#">Q9Z0X1</a>
<b>Cytogenetics:</b>	X 25.68 cM
<b>MW:</b>	66.6 kDa
<b>Gene Summary:</b>	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]