

Rabbit AIFM1 Polyclonal Antibody | anti-AIFM1 antibody

AIFM1 Antibody

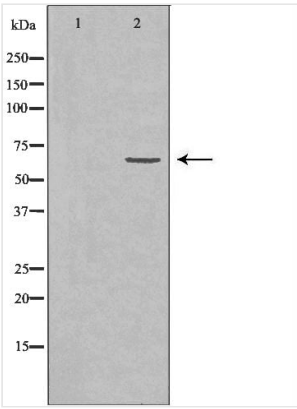
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326770	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

AIFM1; Polyclonal Antibody; AIFM1 Antibody; AIFM1_HUMAN; Apoptosis inducing factor 1; mitochondrial; Apoptosis inducing factor; mitochondrion associated; 1; Apoptosis-inducing factor 1; CMTX4; COWCK; COXPD6; Harlequin; Hq; mAIF; MGC111425; MGC5706; Neuropathy; axonal motor-sensory; with deafness and mental retardation; neuropathy; axonal; motor-sensory with deafness and mental retardation (Cowchock syndrome); PDCD 8; PDCD8; Programmed cell death 8 (apoptosis inducing factor); Programmed cell death 8; Programmed cell death 8 isoform 1; Programmed cell death 8 isoform 2; Programmed cell death 8 isoform 3; Programmed cell death protein 8; Programmed cell death protein 8 mitochondrial; Programmed cell death protein 8 mitochondrial precursor; Striatal apoptosis inducing factor; anti-AIFM1 antibody

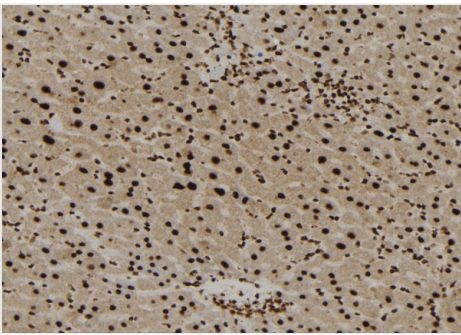
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	AIFM1 antibody detects endogenous levels of total AIFM1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	274
Applicable Applications for anti-AIFM1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human AIFM1
Subcellular Location	Mitochondrion Intermembrane Space. Mitochondrion Inner Membrane. Cytoplasm. Nucleus. Cytoplasm > Perinuclear Region. Proteolytic cleavage during or just after translocation into the mitochondrial intermembrane space (IMS) results in the formation of an inner-membrane-anchored mature form (AIFmit). During apoptosis, further proteolytic processing leads to a mature form, which is confined to the mitochondrial IMS in a soluble form (AIFsol). AIFsol is released to the cytoplasm in response to specific death signals, and translocated to the nucleus, where it induces nuclear apoptosis. Colocalizes with EIF3G in the nucleus and perinuclear region.
Tissue Specificity	Detected in muscle and skin fibroblasts (at protein level). Isoform 5 is frequently down-regulated in human cancers.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



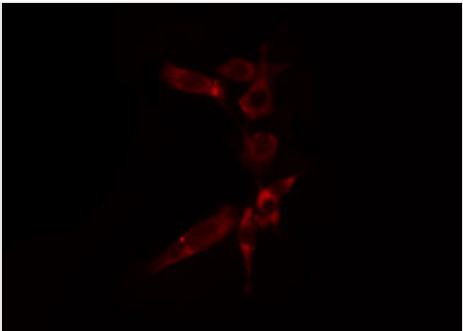
WB (Western Blot)

Western blot analysis of K562 whole cell lysates, using AIFM1 Antibody. The lane on the left is treated with the antigen-specific peptide.



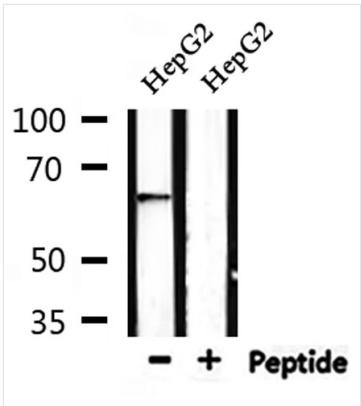
IHC (Immunohistochemisry)

AAA326770 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IF (Immunofluorescence)

AAA326770 staining HuvEc cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from HepG2, using AIFM1 Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-AIFM1 antibody	Description: 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, which results in a severe mitochondrial encephalomyopathy. Alternative splicing results in multiple transcript variants. A related pseudogene has been identified on chromosome 10. Function: 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. Subunit Structure: Monomer (oxidized form). Homodimer (reduced form). Also dimerizes with isoform 3 preventing its release from mitochondria. Interacts with XIAP/BIRC4. Interacts (via N-terminus) with EIF3G (via C-terminus). Interacts with PRELID1. Post-translational Modifications: Under normal conditions, a 54-residue N-terminal segment is first proteolytically removed during or just after translocation into the mitochondrial intermembrane space (IMS) by the mitochondrial processing peptidase (MPP) to form the inner-membrane-anchored mature form (AIFmit). During apoptosis, it is further proteolytically processed at amino-acid position 101 leading to the generation of the mature form, which is confined to the mitochondrial IMS in a soluble form (AIFsol). AIFsol is released to the cytoplasm in response to specific death signals, and translocated to the nucleus, where it induces nuclear apoptosis in a caspase-independent manner. Ubiquitination by XIAP/BIRC4 does not lead to proteasomal degradation. Ubiquitination at Lys-255 by XIAP/BIRC4 blocks its ability to bind DNA and induce chromatin degradation, thereby inhibiting its ability to induce cell death. Similarity: Belongs to the FAD-dependent oxidoreductase family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	923424571
NCBI GeneID	9131
NCBI Accession #	NP_001124318.2
NCBI GenBank Nucleotide #	NM_001130846.3
UniProt Accession #	O95831; Q1L6K4; Q1L6K6; Q2QKE4; Q5JUZ7; Q6I9X6; Q9Y3I3; Q9Y3I4; A4QPB4; B1ALN1; B2RB08; D3DTE9
Molecular Weight	Observed: 66 kDa Predicted: 67 kDa
NCBI Official Full Name	apoptosis-inducing factor 1, mitochondrial isoform AIFsh
NCBI Official Synonym Full Names	apoptosis inducing factor mitochondria associated 1
NCBI Official Symbol	AIFM1
NCBI Official Synonym Symbols	AIF; CMT2D; CMTX4; COWCK; DFNX5; NADMR; NAMSD; PDCD8; COXPD6
NCBI Protein Information	apoptosis-inducing factor 1, mitochondrial
UniProt Protein Name	Apoptosis-inducing factor 1, mitochondrial
UniProt Gene Name	AIFM1
UniProt Synonym Gene Names	AIF; PDCD8

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

