

AIFM2 Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1355b**Specification**

AIFM2 Antibody (C-term) - Product Information

Application	FC, IHC-P, WB,E
Primary Accession	Q9BRQ8
Other Accession	Q8BUE4 , A5PJM4
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	40527
Antigen Region	319-348

AIFM2 Antibody (C-term) - Additional Information**Gene ID** 84883**Other Names**

Apoptosis-inducing factor 2, 1---, Apoptosis-inducing factor homologous mitochondrion-associated inducer of death, Apoptosis-inducing factor-like mitochondrion-associated inducer of death, p53-responsive gene 3 protein, AIFM2, AMID, PRG3 {ECO:0000303|PubMed:12135761}

Target/Specificity

This AIFM2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 319-348 amino acids from the C-terminal region of human AIFM2.

Dilution

FC~~1:10~50

IHC-P~~1:50~100

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

AIFM2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

AIFM2 Antibody (C-term) - Protein Information

Name AIFM2 {ECO:0000303|PubMed:26689472, ECO:0000312|HGNC:HGNC:21411}

Function A NAD(P)H-dependent oxidoreductase that acts as a key inhibitor of ferroptosis (PubMed:[31634899](#), PubMed:[31634900](#), PubMed:[35922516](#), PubMed:[39881208](#)). At the plasma membrane, catalyzes reduction of coenzyme Q/ubiquinone-10 to ubiquinol-10, a lipophilic radical-trapping antioxidant that prevents lipid oxidative damage and consequently ferroptosis (PubMed:[31634899](#), PubMed:[31634900](#)). Acts in parallel to GPX4 to suppress phospholipid peroxidation and ferroptosis (PubMed:[31634899](#), PubMed:[31634900](#)). This anti-ferroptotic function is independent of cellular glutathione levels (PubMed:[31634899](#), PubMed:[31634900](#)). Also acts as a potent radical-trapping antioxidant by mediating warfarin-resistant vitamin K reduction in the canonical vitamin K cycle: catalyzes NAD(P)H-dependent reduction of vitamin K (phylloquinone, menaquinone-4 and menadione) to hydroquinone forms (PubMed:[35922516](#)). Hydroquinones act as potent radical-trapping antioxidants inhibitor of phospholipid peroxidation and ferroptosis (PubMed:[35922516](#)). May play a role in mitochondrial stress signaling (PubMed:[26689472](#)). Upon oxidative stress, associates with the lipid peroxidation end product 4-hydroxy-2-nonenal (HNE) forming a lipid adduct devoid of oxidoreductase activity, which then translocates from mitochondria into the nucleus triggering DNA damage and cell death (PubMed:[26689472](#)). Capable of DNA binding in a non-sequence specific way (PubMed:[15958387](#)).

Cellular Location

Lipid droplet. Cell membrane; Lipid-anchor Cytoplasm. Mitochondrion membrane. Nucleus

Tissue Location

Detected in most normal tissues as two transcripts of 1.8 and 4.0 kb in length, respectively. Highly expressed in heart, moderately in liver and skeletal muscles, and expressed at low levels in placenta, lung, kidney, and pancreas. Both transcripts expressed following p53/TP53 induction. The shorter 1.8 kb transcript seems to be the major transcript in EB1 colon cancer cells

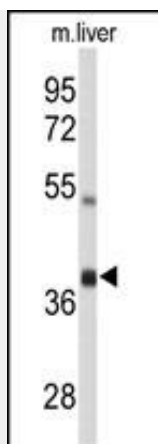
AIFM2 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

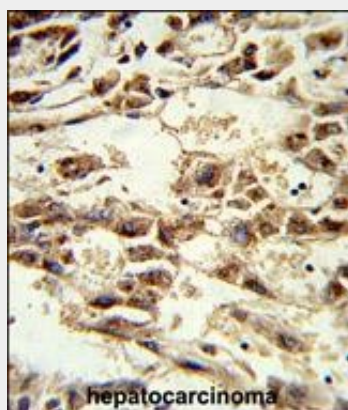
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

AIFM2 Antibody (C-term) - Images

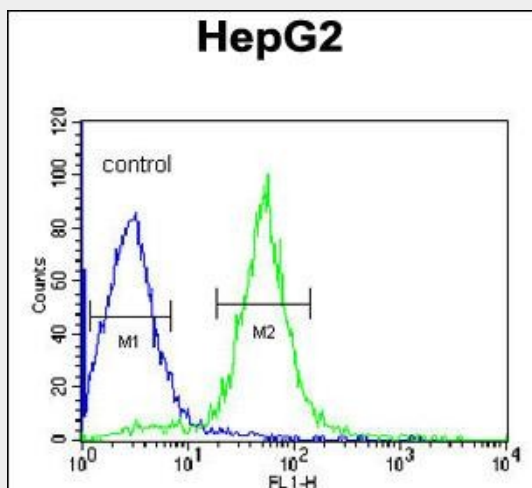




Western blot analysis of AIFM2 Antibody (C-term) (Cat. #AP1355b) in mouse liver tissue lysates (35ug/lane). AIFM2 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with AIFM2 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



AIFM2 Antibody (C-term) (Cat. #AP1355b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

AIFM2 Antibody (C-term) - Background

AIFM2 is significant homology to NADH oxidoreductases and the apoptosis-inducing factor PDCD8/AIF. The protein has been shown to induce apoptosis. This protein is found to be induced by tumor suppressor protein p53 in colon cancer cells.

AIFM2 Antibody (C-term) - References

Ohno Y., Garkavtsev I. FEBS Lett. 524:163-171(2002)
Wu M., Xu L.-G., Su T. Oncogene 23:6815-6819(2004)