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AIFM2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1355c

Specification

AIFM2 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q9BRQ8
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**40527**
Antigen Region	**205-233**

AIFM2 Antibody (Center) - 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 205-233 amino acids from the Central region of human AIFM2.

Dilution
WB~~1:1000

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 (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

AIFM2 Antibody (Center) - 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). 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

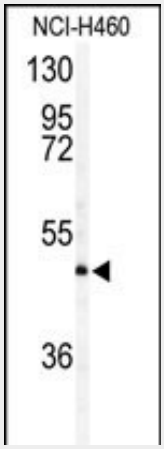
Tissue Location
Detected in most normal tissues as two transcripts of 1.8 and 4.0 kb in length, respectively. Highly expressed in heart, moderately in liver and skeletal muscles, and expressed at low levels in placenta, lung, kidney, and pancreas. Both transcripts expressed following p53/TP53 induction.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

AIFM2 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

AIFM2 Antibody (Center) - Images



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Western blot analysis of AIFM2 antibody (Center) (Cat.#AP1355c) in NCI-H460 cell line lysates (35ug/lane). AIFM2 (arrow) was detected using the purified Pab .

AIFM2 Antibody (Center) - 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 caner cells.

AIFM2 Antibody (Center) - References

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