

**AIFM2 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP1355c****Specification**

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**AIFM2 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [Q9BRQ8](#)**AIFM2 Antibody (Center) Blocking Peptide - 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**

The synthetic peptide sequence used to generate the antibody [AP1355c](/products/AP1355c) was selected from the Center region of human AIFM2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**AIFM2 Antibody (Center) Blocking Peptide - 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](http://www.uniprot.org/citations/31634899), PubMed: [31634900](http://www.uniprot.org/citations/31634900), PubMed: [35922516](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/31634899), PubMed: [31634900](http://www.uniprot.org/citations/31634900)). Acts in parallel to GPX4 to suppress phospholipid peroxidation and ferroptosis (PubMed: [31634899](http://www.uniprot.org/citations/31634899), PubMed: [31634899](http://www.uniprot.org/citations/31634899), PubMed: [31634899](http://www.uniprot.org/citations/31634899)).

[31634900](http://www.uniprot.org/citations/31634900)). This anti-ferroptotic function is independent of cellular glutathione levels (PubMed:[31634899](http://www.uniprot.org/citations/31634899), PubMed:[31634900](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/35922516)). Hydroquinones act as potent radical-trapping antioxidants inhibitor of phospholipid peroxidation and ferroptosis (PubMed:[35922516](http://www.uniprot.org/citations/35922516)). May play a role in mitochondrial stress signaling (PubMed:[26689472](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/26689472)). Capable of DNA binding in a non-sequence specific way (PubMed:[15958387](http://www.uniprot.org/citations/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) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **AIFM2 Antibody (Center) Blocking Peptide - Images**

### **AIFM2 Antibody (Center) Blocking Peptide - 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 (Center) Blocking Peptide - References**

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