

## Anti-AIFM1 (Ser-116), Phosphospecific Antibody

Catalog # AN1622

## **Product Information**

Application	WB
Primary Accession	<u>095831</u>
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	66901

## **Additional Information**

Gene ID	9131
Other Names	PDCD8, AIF1, Apoptosis inducing factor 1, mitochondrial; Program cell death protein 8; striatal AIF
Target/Specificity	Apoptosis-inducing factor (AIFM1, AIF, PDCD8) is a ubiquitously expressed flavoprotein that plays a critical role in caspase-independent apoptosis. AIFM1 is expressed as a 66 kDa precursor protein before being N-terminally cleaved to 62 kDa and localized to the mitochondrial intermembrane space. In response to apoptotic stimuli, AIFM1 is released from the mitochondrial intermembrane as a 57 kDa fragment that can translocate to the nucleus. Treatment of isolated nuclei with recombinant AIFM1 leads to early apoptotic events, such as chromatin condensation and large-scale DNA fragmentation. Studies of AIFM1 knockout mice have shown that the apoptotic activity of AIFM1 is cell type and stimuli-dependent. AIFM1 has been implicated in oxeiptosis, a non-inflammatory, caspase independent cell death pathway caused by oxidative stress. During oxeiptosis, increased reactive oxygen species cause the release of the phosphatase PGAM5 from KEAP1 leading to dephosphorylation of AIFM1 (Ser-116) and subsequent cell death. Thus, AIFM1 phosphorylation status at Ser-116 may be an important marker for cell death involving oxeiptosis.
Dilution	WB~~1:1000
Format	Antigen Affinity Purified
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-AIFM1 (Ser-116), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice
Background	

Apoptosis-inducing factor (AIFM1, AIF, PDCD8) is a ubiquitously expressed flavoprotein that plays a critical role in caspase-independent apoptosis. AIFM1 is expressed as a 66 kDa precursor protein before being N-terminally cleaved to 62 kDa and localized to the mitochondrial intermembrane space. In response to apoptotic stimuli, AIFM1 is released from the mitochondrial intermembrane as a 57 kDa fragment that can translocate to the nucleus. Treatment of isolated nuclei with recombinant AIFM1 leads to early apoptotic events, such as chromatin condensation and large-scale DNA fragmentation. Studies of AIFM1 knockout mice have shown that the apoptotic activity of AIFM1 is cell type and stimuli-dependent. AIFM1 has been implicated in oxeiptosis, a non-inflammatory, caspase independent cell death pathway caused by oxidative stress. During oxeiptosis, increased reactive oxygen species cause the release of the phosphatase PGAM5 from KEAP1 leading to dephosphorylation of AIFM1 (Ser-116) and subsequent cell death. Thus, AIFM1 phosphorylation status at Ser-116 may be an important marker for cell death involving oxeiptosis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.