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Anti-AIFM1 (Ser-116), Phosphospecific Antibody

Catalog # AN1622

Product Information

Application	WB
Primary Accession	O95831
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.