

Anti-AIF Antibody
Mouse Monoclonal Antibody
Catalog # AP53426**Specification**

Anti-AIF Antibody - Product Information

Application	WB, IF
Primary Accession	O95831
Other Accession	NM_004208
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Immunogen	Purified recombinant human AIF protein fragments expressed in E.coli.
Purification	Affinity purified
Calculated MW	67 KDa

Anti-AIF Antibody - Additional Information**Gene ID** 9131**Other Names**

AIFM1; AIFM1_HUMAN; Apoptosis inducing factor 1, mitochondrial; Apoptosis inducing factor; Apoptosis inducing factor, mitochondrion associated, 1; Apoptosis-inducing factor 1; CMTX4; COWCK; COXPD6; Harlequin; Hq; mAIF; MGC111425; MGC5706; mitochondrial; Neuropathy, axonal motor-sensory, with deafness and mental retardation; neuropathy, axonal, motor-sensory with deafness and mental retardation (Cowchock syndrome); PDCD 8; PDCD8; Programmed cell death 8 (apoptosis inducing factor); Programmed cell death 8; Programmed cell death 8 isoform 1; Programmed cell death 8 isoform 2; Programmed cell death 8 isoform 3; Programmed cell death protein 8; Programmed cell death protein 8 mitochondrial; Programmed cell death protein 8 mitochondrial precursor; Striatal apoptosis inducing factor.

DilutionWB~~1:1000
IF~~1:50~200**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Storage

Store at -20 °C.Stable for 12 months from date of receipt

Anti-AIF Antibody - Protein Information**Name** AIFM1 ([HGNC:8768](#))**Synonyms** AIF, PDCD8

Function

Functions both as NADH oxidoreductase and as regulator of apoptosis (PubMed:17094969, PubMed:20362274, PubMed:23217327, PubMed:33168626). In response to apoptotic stimuli, it is released from the mitochondrion intermembrane space into the cytosol and to the nucleus, where it functions as a proapoptotic factor in a caspase- independent pathway (PubMed:20362274). Release into the cytoplasm is mediated upon binding to poly-ADP-ribose chains (By similarity). The soluble form (AIFsol) found in the nucleus induces 'parthanatos' i.e. caspase-independent fragmentation of chromosomal DNA (PubMed:20362274). Binds to DNA in a sequence-independent manner (PubMed:27178839). Interacts with EIF3G, and thereby inhibits the EIF3 machinery and protein synthesis, and activates caspase-7 to amplify apoptosis (PubMed:17094969). Plays a critical role in caspase-independent, pyknotic cell death in hydrogen peroxide-exposed cells (PubMed:19418225). In contrast, participates in normal mitochondrial metabolism. Plays an important role in the regulation of respiratory chain biogenesis by interacting with CHCHD4 and controlling CHCHD4 mitochondrial import (PubMed:26004228).

Cellular Location

Mitochondrion intermembrane space. Mitochondrion inner membrane. Cytoplasm. Nucleus. Cytoplasm, perinuclear region. Note=Proteolytic cleavage during or just after translocation into the mitochondrial intermembrane space (IMS) results in the formation of an inner-membrane-anchored mature form (AIFmit). During apoptosis, further proteolytic processing leads to a mature form, which is confined to the mitochondrial IMS in a soluble form (AIFsol). AIFsol is released to the cytoplasm in response to specific death signals, and translocated to the nucleus, where it induces nuclear apoptosis (PubMed:15775970). Release into the cytoplasm is mediated upon binding to poly-ADP-ribose chains (By similarity) Translocation into the nucleus is promoted by interaction with (auto- poly-ADP-ribosylated) processed form of PARP1 (PubMed:33168626) Colocalizes with EIF3G in the nucleus and perinuclear region (PubMed:17094969). {ECO:0000250|UniProtKB:Q9Z0X1, ECO:0000269|PubMed:15775970, ECO:0000269|PubMed:17094969, ECO:0000269|PubMed:33168626} [Isoform 4]: Mitochondrion. Cytoplasm, cytosol. Note=In pro-apoptotic conditions, is released from mitochondria to cytosol in a calpain/cathepsin-dependent manner.

Tissue Location

Expressed in all tested tissues (PubMed:16644725). Detected in muscle and skin fibroblasts (at protein level) (PubMed:23217327). Expressed in osteoblasts (at protein level) (PubMed:28842795). [Isoform 4]: Expressed in all tested tissues except brain.

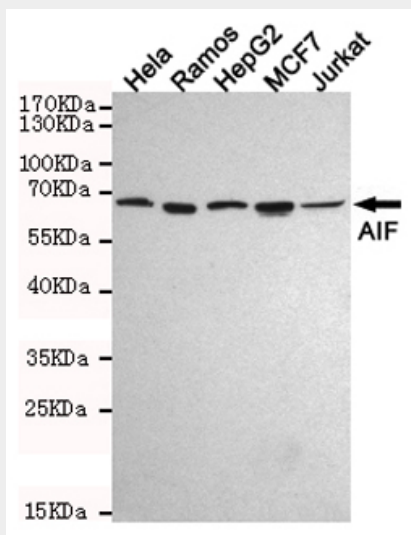
Anti-AIF Antibody - Protocols

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

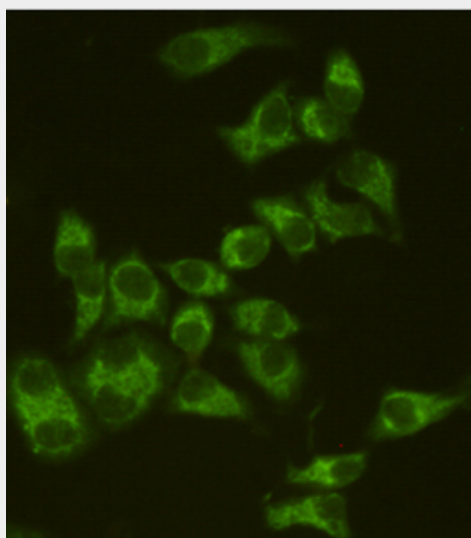
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-AIF Antibody - Images



Western blot analysis of extracts from HeLa, Ramos, HepG2, MCF7 and Jurkat cell lysates using AIF mouse mAb (1:1000 diluted). Predicted band size: 67 kDa. Observed band size: 67 kDa.



Immunocytochemistry staining of HeLa cells fixed with 4% Paraformaldehyde and using anti-AIF mouse mAb (dilution 1:200).

Anti-AIF Antibody - Background

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