

**AIF Rabbit mAb**  
Catalog # AP78592**Specification**

---

**AIF Rabbit mAb - Product Information**

Application	<b>WB, IHC-P, FC, IP, ICC</b>
Primary Accession	<b><a href="#">O95831</a></b>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Monoclonal Antibody</b>
Calculated MW	<b>66901</b>

**AIF Rabbit mAb - Additional Information**

Gene ID 9131

**Other Names**

AIFM1

**Format**

Liquid

**AIF Rabbit mAb - Protein Information**Name AIFM1 ([HGNC:8768](#))

Synonyms AIF, PDCD8

**Function**

Functions both as NADH oxidoreductase and as regulator of apoptosis (PubMed: [17094969](http://www.uniprot.org/citations/17094969), PubMed: [20362274](http://www.uniprot.org/citations/20362274), PubMed: [23217327](http://www.uniprot.org/citations/23217327), PubMed: [33168626](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/20362274)). Binds to DNA in a sequence-independent manner (PubMed: [27178839](http://www.uniprot.org/citations/27178839)). Interacts with EIF3G, and thereby inhibits the EIF3 machinery and protein synthesis, and activates caspase-7 to amplify apoptosis (PubMed: [17094969](http://www.uniprot.org/citations/17094969)). Plays a critical role in caspase-independent, pyknotic cell death in hydrogen peroxide-exposed cells (PubMed: [19418225](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/26004228" target="\_blank">26004228</a>).

#### **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.

#### **AIF Rabbit mAb - 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](#)

#### **AIF Rabbit mAb - Images**