

AIFM1 Mouse mAb

CatalogNo: YM0017

Key Features

Host Species

- Mouse

Reactivity

- Human, Mouse, Rat, Monkey

Applications

- WB, IHC, IF, FC, ELISA

MW

- 67kD (Calculated)

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

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

Recommended Dilution Ratios

WB 1:500-1:2000

IHC 1:200-1:1000

IF 1:200-1:1000

Flow Cyt 1:200-1:400

ELISA 1:10000

Not yet tested in other applications.

Basic Information

Clonality Monoclonal

Clone Number 6A8

Immunogen Information

Immunogen Purified recombinant fragment of human AIF-M1 expressed in E. Coli.

Specificity AIF-M1 Monoclonal Antibody detects endogenous levels of AIF-M1 protein.

| Target Information

Gene name AIFM1 ALF PDCD8

Protein Name Apoptosis-inducing factor 1 mitochondrial

Organism	Gene ID	UniProt ID
Human	9131 ;	O95831 ;
Mouse	26926 ;	Q9Z0X1 ;
Rat	83533 ;	Q9JM53 ;

**Cellular
Localization**

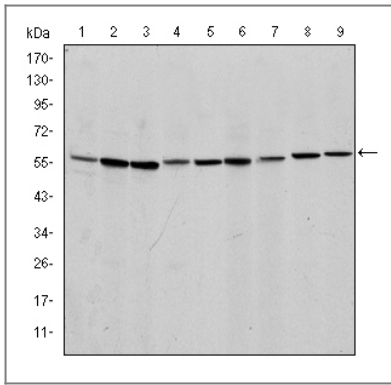
Mitochondrion intermembrane space . Mitochondrion inner membrane. Cytoplasm . Nucleus . Cytoplasm, perinuclear region . Proteolytic cleavage during or just after translocation into the mitochondrial intermembrane space (IMS) results in the formation of an inner-membrane-anchored mature form (AIFmit). 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). Colocalizes with EIF3G in the nucleus and perinuclear region (PubMed:17094969). . ; [Isoform 3]: Mitochondrion intermembrane space . Mitochondrion inner membrane . Has a stronger membrane anchorage than isoform 1. . ; [Isoform 4]: Mitochondrion . Cytoplasm, cytosol . In pro-apoptotic conditions, is released from mitochondria to cytosol in a calpain/cathepsin-dependent manner. . ; [Isoform 5]: Cytoplasm .

Tissue specificity 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 3]: Brain specific. ; [Isoform 4]: Expressed in all tested tissues except brain. ; [Isoform 5]: Isoform 5 is frequently down-regulated in human cancers.

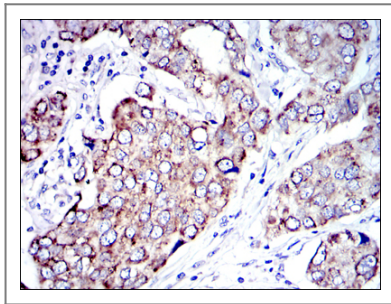
Function

Catalytic activity:2 glutathione + protein-disulfide = glutathione disulfide + protein-dithiol.,cofactor:FAD.,Function:Possesses significant protein thiol-disulfide oxidase activity.,Function:Probable oxidoreductase that acts as a caspase-independent mitochondrial effector of apoptotic cell death. Extramitochondrial AIF induces nuclear chromatin condensation and large scale DNA fragmentation (in vitro). Binds to DNA in a sequence-independent manner.,similarity:Belongs to the FAD-dependent oxidoreductase family.,similarity:Contains 1 thioredoxin domain.,subcellular location:Translocated to the nucleus upon induction of apoptosis.,subunit:Interacts with XIAP.,tissue specificity:Widely expressed.,

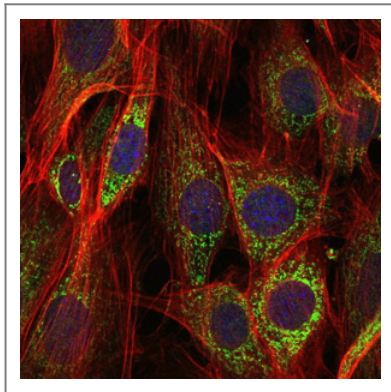
| Validation Data



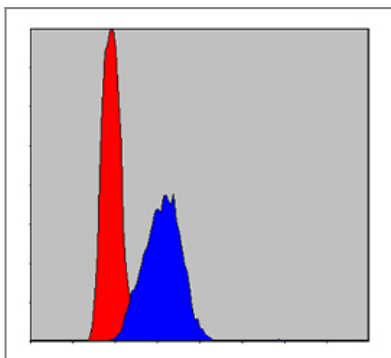
Western Blot analysis using AIF-M1 Monoclonal Antibody against NIH/3T3 (1), Jurkat (2), HeLa (3), HepG2 (4), MOLT4 (5), C6 (6), RAJI (7), Cos7 (8) and PC-12 (9) cell lysate.



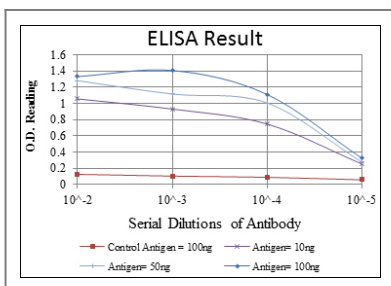
Immunohistochemistry analysis of paraffin-embedded human breast cancer tissues with DAB staining using AIF-M1 Monoclonal Antibody.



Immunofluorescence analysis of NIH/3T3 cells using AIF-M1 Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of HepG2 cells using AIF-M1 Monoclonal Antibody (blue) and negative control (red).



| Contact information

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Please scan the QR code
to access additional
product information:
AIFM1 Mouse mAb

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