PRODUCT DATA SHEET

AIF:-M1 Monoclonal Antibody

Catalog No.	IMB0204
Reactivity	Human;Mouse;Rat;Monkey
Applications	WB; IHC-p; IF/ICC; FCM; ELISA
Gene Name	AIF:M1
Protein Name	Apoptosis-inducing factor 1 mitochondrial
Human Gene Id	9131
Swiss-Prot	O95831
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Dilution	WB: 1:500-1:2000 IHC: 1:200-1:1000 IF: 1:200-1:1000 FCM: 1:200-1:400 ELISA: 1:10000
PurIF:ication	Affinity purIF:ication
Concentration	-
Storage&Stability	-20°C/1 year
Background	This gene encodes a flavoprotein essential for nuclear disassembly in apoptotic cells, and it is found in the mitochondrial intermembrane space in healthy cells. Induction of apoptosis results in the translocation of this protein to the nucleus where it affects chromosome condensation and fragmentation. In addition, this gene product induces mitochondria to release the apoptogenic proteins cytochrome c and caspase-9. Mutations in this gene cause combined oxidative phosphorylation deficiency 6 (COXPD6), a severe mitochondrial encephalomyopathy, as well as Cowchock syndrome, also known as X-linked recessive Charcot-Marie-Tooth disease-4 (CMTX-4), a disorder resulting in neuropathy, and axonal and motor-sensory defects with deafness and mental retardation. Alternative splicing results in multiple transcript variants. A related pseudogene has been identIF:ied on chromosome.
Subcellular Location.	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 (AIF:mit). During apoptosis, further proteolytic processing leads to a mature form, which is confined to the mitochondrial IMS in a soluble form (AIF:sol). AIF:sol is released to the cytoplasm in response to specIF:ic death signals, and translocated to the nucleus, where it induces nuclear apoptosis (PubMed:15775970). Colocalizes with EIF:3G 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 .

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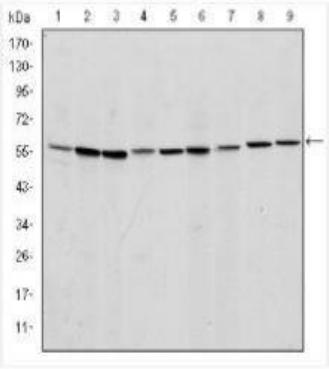
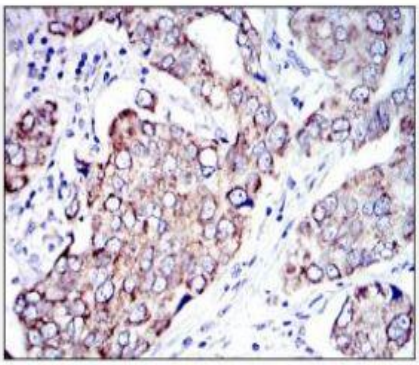
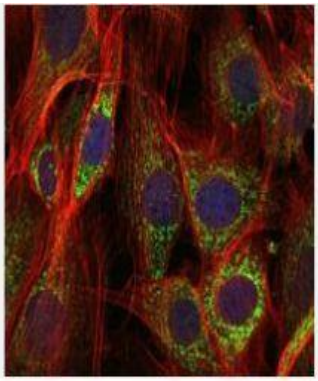
Products Images:



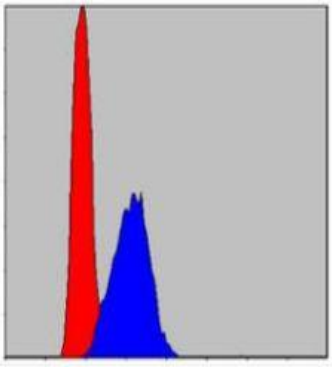
Western Blot analysis using AIF-M1 Monoclonal Antibody against NIH/3T3 (1), Jurkat (2), HeLa (3), HepG2 (4), MOLT4 (5), C6 (6), RAJI (7), Cos7 (8) and PC-12 (9) cell lysate.



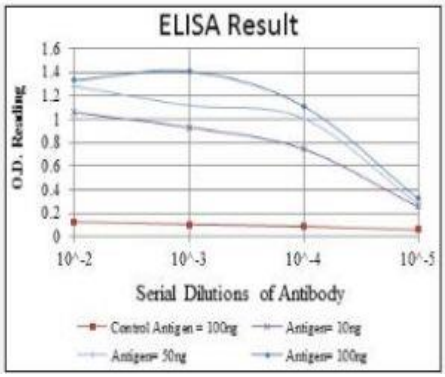
Immunohistochemistry analysis of paraffin-embedded human breast cancer tissues with DAB staining using AIF-M1 Monoclonal Antibody.



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).


ELISA Result
O.D. Reading
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
10^-2
10^-3
10^-4
10^-5
Serial Dilutions of Antibody
Control Antigen = 100ng
Antigen= 10ng
Antigen= 50ng
Antigen= 100ng