

Anti-AIF/AIFM1 Antibody Picoband®

Catalog Number: PA2232

About AIFM1

Apoptosis-inducing factor 1, mitochondrial, also known as AIF or PDCD8 is a protein that in humans is encoded by the AIFM1 gene. AIFM1 gene is mapped to Xq26.1 based on an alignment of the AIFM1 sequence with the genomic sequence. 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, which results in a severe mitochondrial encephalomyopathy. A related pseudogene has been identified on chromosome 10.

Overview

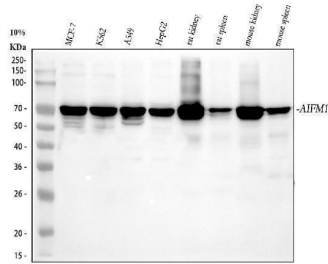
Product Name	Anti-AIF/AIFM1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-AIF/AIFM1 Antibody catalog # PA2232. Tested in IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O95831

Technical Details

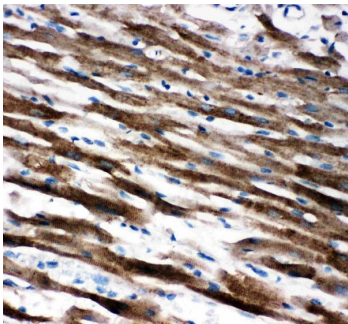
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human AIF, identical to the related rat and mouse sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and

	ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunocytochemistry , 0.5-1ug/ml, Human, Mouse, Rat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Rat, Human, Mouse Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat, Mouse Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

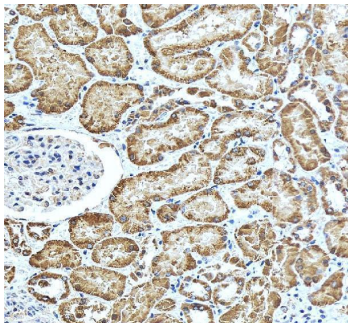
Anti-AIF/AIFM1 Antibody Picoband® (PA2232) Images



Western blot analysis of AIFM1 using anti-AIFM1 antibody (PA2232). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human MCF-7 whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human A549 whole cell lysates, Lane 4: human HepG2 whole cell lysates, Lane 5: rat kidney tissue lysates, Lane 6: rat spleen tissue lysates, Lane 7: mouse kidney tissue lysates, Lane 8: mouse spleen tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-AIFM1 antigen affinity purified polyclonal antibody (Catalog # PA2232) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for AIFM1 at approximately 67 kDa. The expected band size for AIFM1 is at 67 kDa.

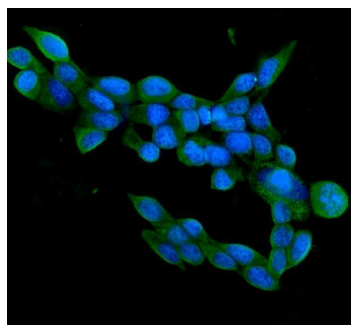
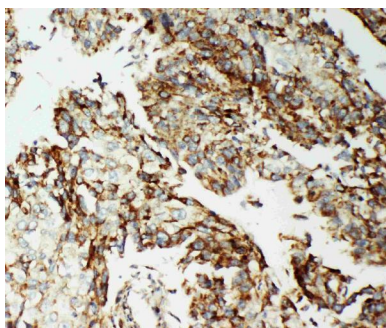


Anti-AIF antibody, PA2232, IHC(P)IHC(P): Rat Cardiac Muscle Tissue



IHC analysis of AIF/AIFM1 using anti-AIF/AIFM1 antibody (PA2232). AIF/AIFM1 was detected in a paraffin-embedded section of human kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-AIF/AIFM1 Antibody (PA2232) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Anti-AIF antibody, PA2232, IHC(P)IHC(P): Human Lung Cancer Tissue



IF analysis of AIFM1 using anti-AIFM1 antibody (PA2232). AIFM1 was detected in an immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-AIFM1 Antibody (PA2232) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

3 Publications Citing This Product

1. PubMed ID: 27895670, Wnt5a Increases Properties of Lung Cancer Stem Cells and Resistance to Cisplatin through Activation of Wnt5a/PKC Signaling Pathway
2. PubMed ID: 25168103, Feng T, Liu Y, Li C, Li Z. Cell Biochem Biophys. 2015 Jan;71(1):345-51. Doi: 10.1007/S12013-014-0204-1. Protective Effects Of Nigranoic Acid On Cerebral Ischemia-Reperfusion Injury And Its Mechanism Involving Apoptotic Signaling Pathway.
3. PubMed ID: 27330750, Mechanism of apoptosis induction in human hepatocellular carcinoma cells following treatment with a gecko peptides mixture

Visit bosterbio.com/anti-aif-antibody-pa2232-boster.html to see all 3 publications.

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