



Rabbit Anti-AIF antibody

SL0037R

Product Name:	AIF
Chinese Name:	凋亡诱导因子抗体
Alias:	Apoptosis inducing factor; Harlequin; Hq; mAIF; MGC111425; MGC5706; PDCD 8; PDCD8; 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 mitochondrial; Programmed cell death protein 8 mitochondrial precursor; Striatal apoptosis inducing factor; AIFM1_HUMAN; Apoptosis-inducing factor 1, mitochondrial.
文献引用 PubMed :	<p>Specific References(2) SL0037R has been referenced in 2 publications.</p> <p>[IF=5.40]Gong, Ping, et al. "Hypothermia-induced neuroprotection is associated with reduced mitochondrial membrane permeability in a swine model of cardiac arrest." Journal of Cerebral Blood Flow & Metabolism (2013).WB;Pig. PubMed:23486294</p> <p>[IF=3.26]Li, Zhiping, et al. "Anti-Oxidative Stress Activity Is Essential for Amanita caesarea Mediated Neuroprotection on Glutamate-Induced Apoptotic HT22 Cells and an Alzheimer's Disease Mouse Model." International Journal of Molecular Sciences 18.8 (2017): 1623.WB;Mouse. PubMed:28749416</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.

Molecular weight:	57kDa
Cellular localization:	The nucleuscytoplasmic Mitochondrion
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human AIF:131-230/613
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>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. Alternative splicing results in multiple transcript variants. A related pseudogene has been identified on chromosome 10. [provided by RefSeq, May 2010].</p> <p>Function: Probable oxidoreductase that has a dual role in controlling cellular life and death; during apoptosis, it is translocated from the mitochondria to the nucleus to function as a proapoptotic factor in a caspase-independent pathway, while in normal mitochondria, it functions as an antiapoptotic factor via its oxidoreductase activity. The soluble form (AIFsol) found in the nucleus induces 'parthanatos' i.e. caspase-independent fragmentation of chromosomal DNA. Interacts with EIF3G, and thereby inhibits the EIF3 machinery and protein synthesis, and activates casapse-7 to amplify apoptosis. Plays a critical role in caspase-independent, pyknotic cell death in hydrogen peroxide-exposed cells. Binds to DNA in a sequence-independent manner.</p> <p>Subunit: Interacts with XIAP/BIRC4. Interacts (via N-terminus) with EIF3G (via C-terminus).</p> <p>Subcellular 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. Colocalizes with EIF3G in the nucleus and perinuclear region.</p>

Tissue Specificity:

Isoform 5 is frequently down-regulated in human cancers.

Post-translational modifications:

Under normal conditions, a 54-residue N-terminal segment is first proteolytically removed during or just after translocation into the mitochondrial intermembrane space (IMS) by the mitochondrial processing peptidase (MPP) to form the inner-membrane-anchored mature form (AIFmit). During apoptosis, it is further proteolytically processed at amino-acid position 101 leading to the generation of the 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 in a caspase-independent manner.

Ubiquitination by XIAP/BIRC4 does not lead to proteasomal degradation.

Ubiquitination at Lys-255 by XIAP/BIRC4 blocks its ability to bind DNA and induce chromatin degradation, thereby inhibiting its ability to induce cell death.

DISEASE:

Combined oxidative phosphorylation deficiency 6 (COXPD6) [MIM:300816]: A mitochondrial disease resulting in a neurodegenerative disorder characterized by psychomotor delay, hypotonia, areflexia, muscle weakness and wasting. Some patients manifest prenatal ventriculomegaly and severe postnatal encephalomyopathy. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:

Belongs to the FAD-dependent oxidoreductase family.

SWISS:

O95831

Gene ID:

9131

Database links:

[Entrez Gene: 51060](#)Human

[Entrez Gene: 9131](#)Human

[Entrez Gene: 26926](#)Mouse

[Entrez Gene: 83533](#)Rat

[Omim: 300169](#)Human

[SwissProt: O95831](#)Human

[SwissProt: Q9Z0X1](#)Mouse

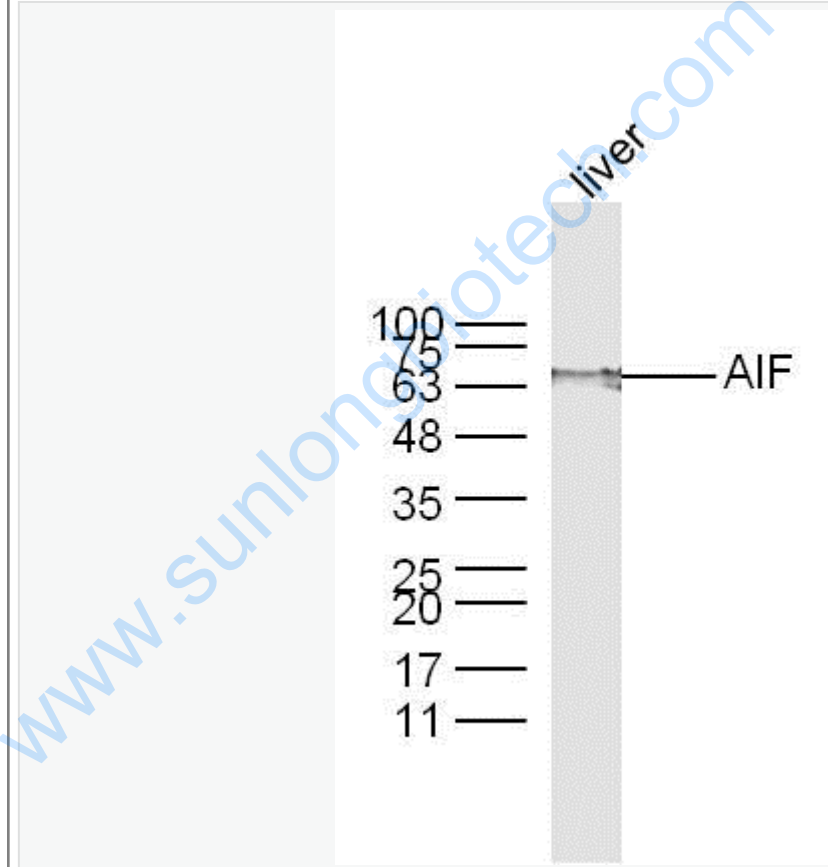
[SwissProt: Q9JM53](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

AIF是一种易位到The nucleus诱导凋亡的Mitochondrion蛋白, AIF可引起DNA破碎、染色质凝聚, 还可诱导细胞色素C和Caspase-9从Mitochondrion中释放出来, AIF从Mitochondrion中的释放可被过度表达的Bcl-2(一种参与Mitochondrion渗透的蛋白质)所抑制。

Picture:



Sample:

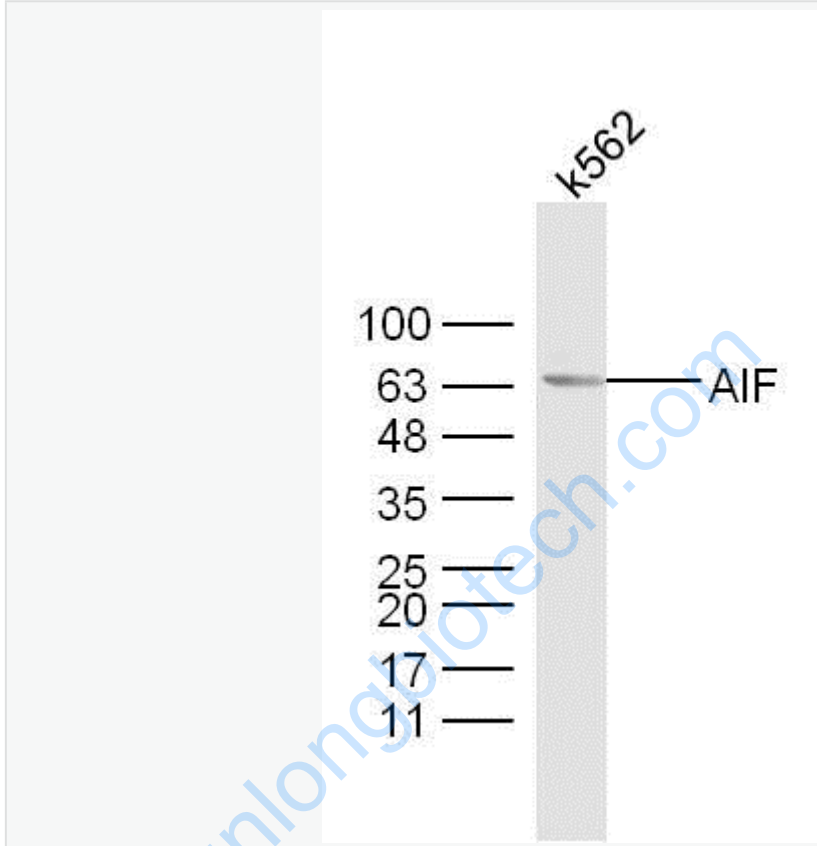
Liver (Mouse) Lysate at 40 ug

Primary: Anti-AIF (SL0037R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 57 kD

Observed band size: 63 kD



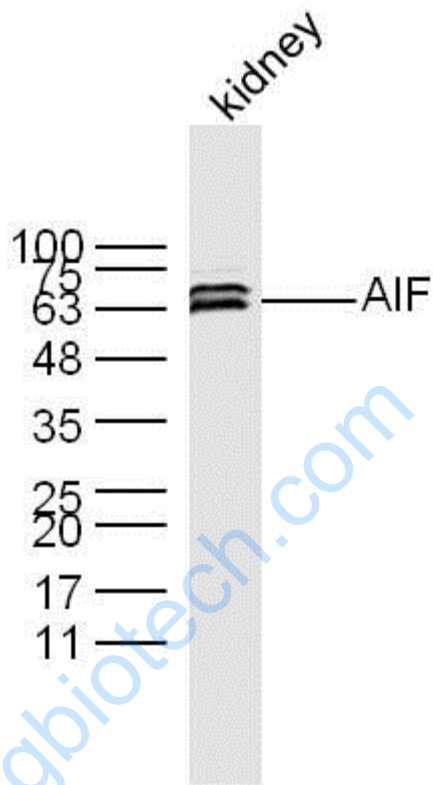
Sample: K562 Cell Lysate at 40 ug

Primary: Anti-AIF (SL0037R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 57 kD

Observed band size: 63 kD



Sample:

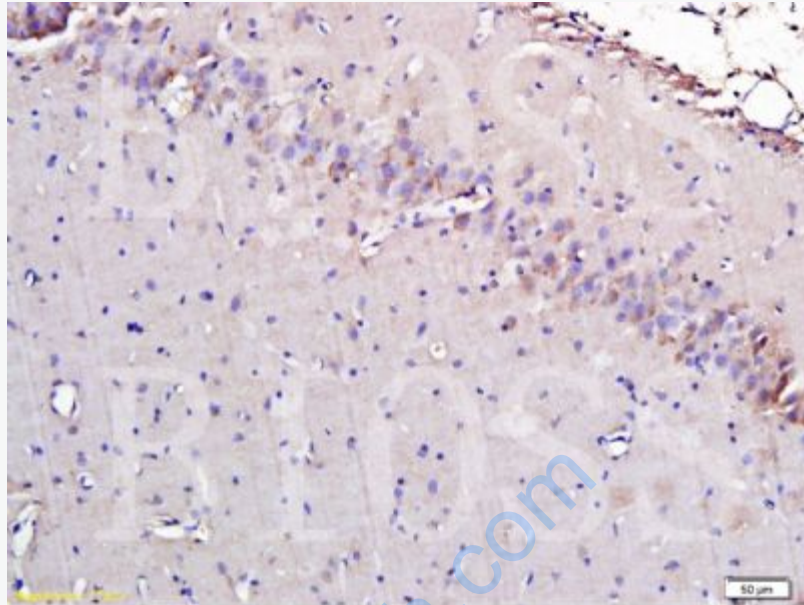
Kidney (Mouse) Lysate at 40 ug

Primary: Anti-AIF (SL0037R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 57 kD

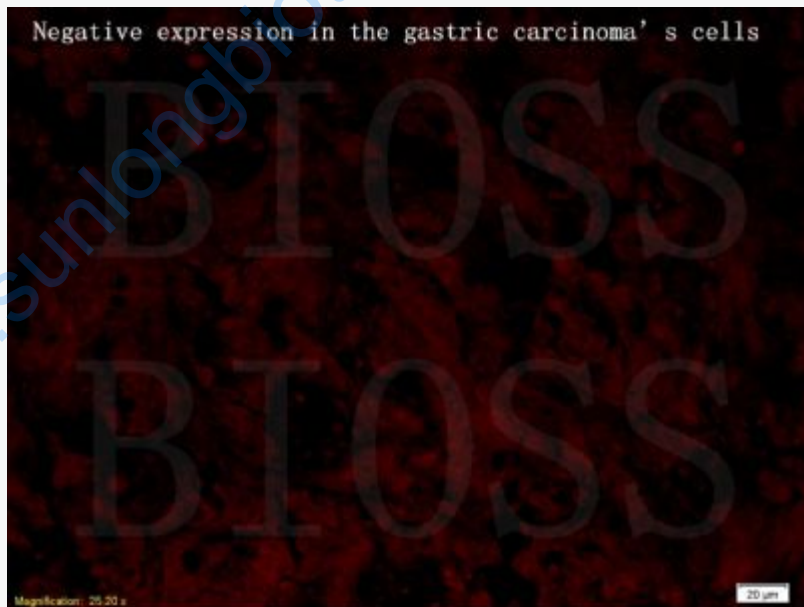
Observed band size: 63 kD



bs-0037R Anti-AIF(Apoptosis inducing factor)

Formalin-fixed and paraffin-embedded rat brain tissue labeled with Rabbit Anti-AIF Polyclonal Antibody, Unconjugated(bs-0037R) at 1:300 followed by conjugation to the secondary antibody and DAB staining

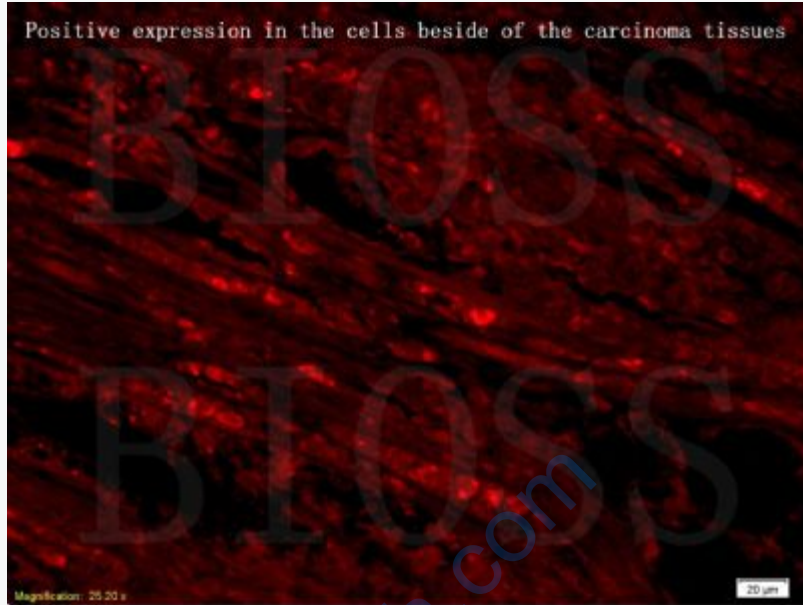
Negative expression in the gastric carcinoma' s cells



bs-0037R Anti-AIF(Apoptosis inducing factor)

Rabbit Anti-AIF polyclonal antibody, unconjugated (bs-0037R) at 1:300 staining human gastric carcinoma tissue. The tissue were Formalin-fixed and paraffin-embedded and blocked with goat serum for 20 minutes before incubation with the primary antibody for 20 hours at 4°C. The secondary antibody (red) was Goat Anti-Rabbit IgG, PE conjugated (bs-0295G-PE) used at 1:200 dilution for 40 minutes at 37°C.

Positive expression in the cells beside of the carcinoma tissues



Magnification: 25.00 x

20 μm

bs-0037R Anti-AIF(Apoptosis inducing factor)

Rabbit Anti-AIF polyclonal antibody, unconjugated (bs-0037R) at 1:300 staining human gastric carcinoma tissue. The tissue were Formalin-fixed and paraffin-embedded and blocked with goat serum for 20 minutes before incubation with the primary antibody for 20 hours at 4°C. The secondary antibody (red) was Goat Anti-Rabbit IgG, PE conjugated (bs-0295G-PE) used at 1:200 dilution for 40 minutes at 37°C.

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