

## AIFM1 (PT0650R) PT™ Rabbit mAb

CatalogNo: YM8459 **Recombinant**  **KD/KO Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, IP, ELISA

#### MW

- 67kD (Calculated)  
67kD (Observed)

#### Isotype

- IgG, Kappa

### Storage

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

**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

### Recommended Dilution Ratios

IHC 1:200-1:1000

WB 1:2000-1:10000

IF 1:200-1:1000

ELISA 1:5000-1:20000

IP 1:50-1:200

### Basic Information

**Clonality** Monoclonal

**Clone Number** PT0650R

### Immunogen Information

**Immunogen** The specific immunogen used to produce this antibody is proprietary information.

**Specificity** Endogenous

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## | Target Information

**Gene name** AIFM1 ALF PDCD8

**Protein Name** Apoptosis-inducing factor 1 mitochondrial

Organism	Gene ID	UniProt ID
Human	<a href="#">9131</a> ;	<a href="#">O95831</a> ;
Mouse	<a href="#">26926</a> ;	<a href="#">Q9Z0X1</a> ;
Rat	<a href="#">83533</a> ;	<a href="#">Q9JMS3</a> ;

**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**

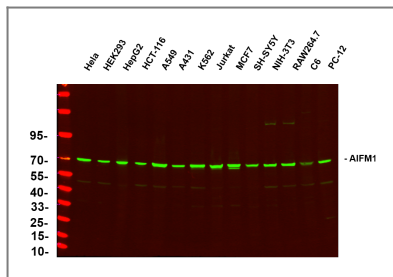
Expressed in all tested tissues (PubMed:16644725) . Detected in muscle and skin fibroblasts (at protein level) (PubMed:23217327) . Expressed in osteoblasts (at protein level) (PubMed:28842795) . . ; [Isoform 3]: Brain specific. ; [Isoform 4]: Expressed in all tested tissues except brain. ; [Isoform 5]: Isoform 5 is frequently down-regulated in human cancers.

**Function**

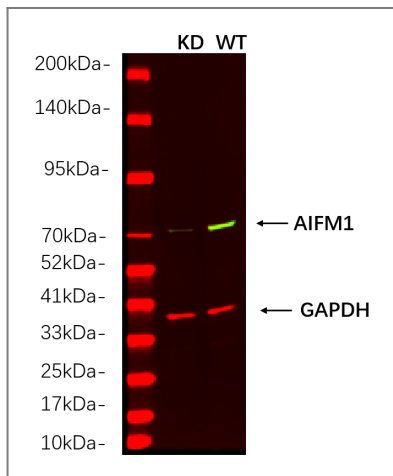
Catalytic activity:2 glutathione + protein-disulfide = glutathione disulfide + protein-dithiol. ,cofactor:FAD. ,Function:Possesses significant protein thiol-disulfide oxidase activity. ,Function:Probable oxidoreductase that acts as a caspase-independent mitochondrial effector of apoptotic cell death. 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. ,

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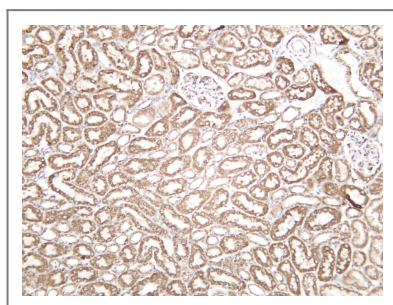
## | Validation Data



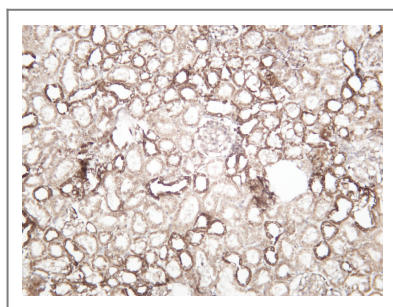
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C over night with a 1:5000 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HeLa - Human cervical cancer Lane2: HEK293 - Human normal embryonic kidney Lane3: HepG2 - Human hepatocellular carcinoma Lane4: HCT-116 - Human colon cancer Lane5: A549 - Human lung adenocarcinoma Lane6: A431 - Human skin squamous cell carcinoma Lane7: K562 - Human chronic myeloid leukemia Lane8: Jurkat - Human acute T cell leukemia cells Lane9: MCF7 - Human breast cancer Lane10: SH-SY5Y - Human neuroblastoma cells Lane11: NIH-3T3 - NIH mouse fibroblasts Lane12: RAW264.7 - Mouse mononuclear macrophage leukemia cells Lane13: C6 - Rat glioma cells Lane14: PC-12 - Pheochromocytoma in rats



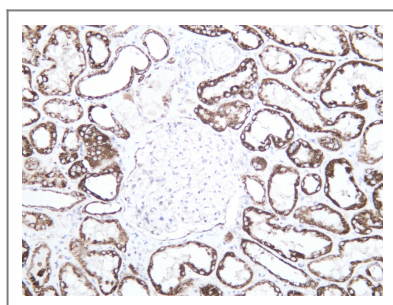
Western blot analysis of lysates from HAP1 WT and knockdown cell. (Green) primary antibody was diluted at 1:5000, 4°C over night, Dylight 800 secondary antibody (Immunoway:RS23920)was diluted at 1:10000, 37° 1hour. (Red) GAPDH Monoclonal Antibody (5B7) (Immunoway:YM3029) antibody was diluted at 1:5000 as loading control, 4°C over night, Dylight 680 secondary antibody (Immunoway:RS23710)was diluted at 1:10000, 37° 1hour.



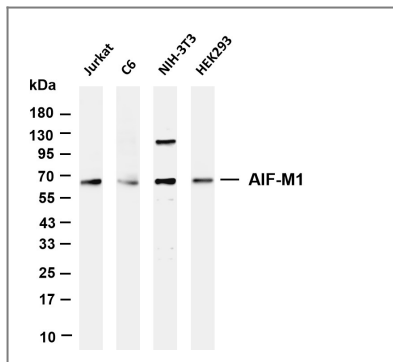
Mouse kidney was stained with anti-AIF-M1 rabbit antibody



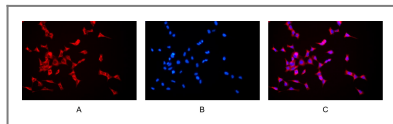
Rat kidney was stained with anti-AIF-M1 rabbit antibody



Human kidney was stained with anti-AIF-M1 rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-AIF-M1 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Jurkat Lane 2: C6 Lane 3: NIH-3T3 Lane 4: HEK293 Predicted band size: 67kDa Observed band size: 67kDa



Immunofluorescence analysis of HEK293. Picture A: AIF antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

## Contact information

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**PT™ Rabbit mAb**

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