

AIFM1 (PT0650R) PT™ Rabbit mAb

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

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

| 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

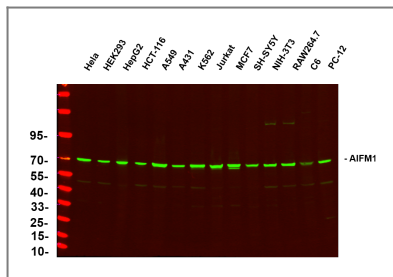
Mitochondrion intermembrane space . Mitochondrion inner membrane. Cytoplasm . Nucleus . Cytoplasm, perinuclear region . Proteolytic cleavage during or just after translocation into the mitochondrial intermembrane space (IMS) results in the formation of an inner-membrane-anchored mature form (AIFmit). 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.

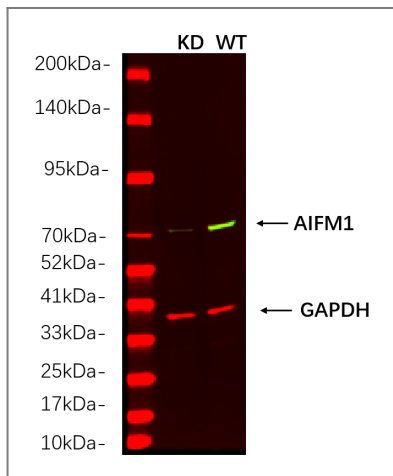
Function

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.,

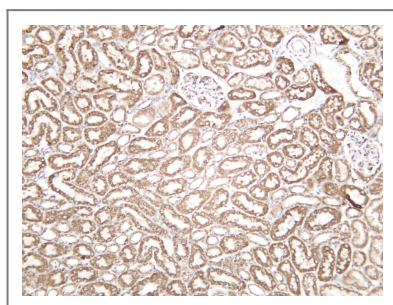
| Validation Data



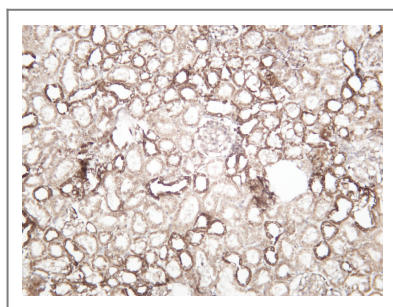
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C over night with a 1:5000 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HeLa - Human cervical cancer Lane2: HEK293 - Human normal 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



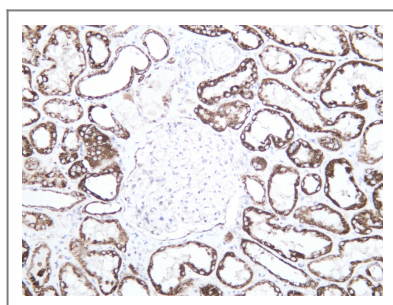
Western blot analysis of lysates from HAP1 WT and knockdown cell. (Green) primary antibody was diluted at 1:5000, 4°C over night, Dylight 800 secondary antibody (Immunoway:RS23920)was diluted at 1:10000, 37° 1hour. (Red) GAPDH Monoclonal Antibody (5B7) (Immunoway:YM3029) antibody was diluted at 1:5000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



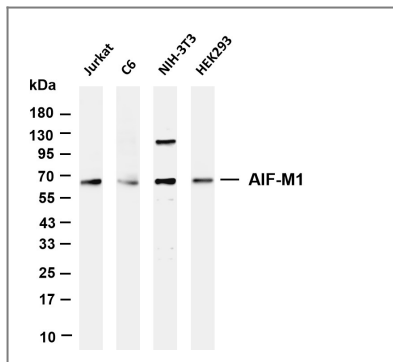
Mouse kidney was stained with anti-AIF-M1 rabbit antibody



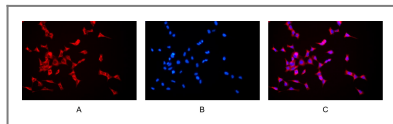
Rat kidney was stained with anti-AIF-M1 rabbit antibody



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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Please scan the QR code to access additional product information:
AIFM1 (PT0650R)
PT™ Rabbit mAb

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