

**Anti-Grp75 Picoband Antibody**  
Catalog # ABO12328**Specification****Anti-Grp75 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P38646</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Stress-70 protein, mitochondrial(HSPA9) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Grp75 Picoband Antibody - Additional Information**

Gene ID 3313

**Other Names**

Stress-70 protein, mitochondrial, 75 kDa glucose-regulated protein, GRP-75, Heat shock 70 kDa protein 9, Mortalin, MOT, Peptide-binding protein 74, PBP74, HSPA9, GRP75, HSPA9B, mt-HSP70

**Calculated MW**

73680 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat  
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

**Subcellular Localization**

Mitochondrion . Nucleus, nucleolus .

**Protein Name**

Stress-70 protein, mitochondrial

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>N.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Grp75 (646-679aa KLFEMAYKKMASEREGSGSSGTGEQKEDQKEEKQ), identical to the related mouse and rat sequences.

**Purification**

Immunogen affinity purified.

### Cross Reactivity

No cross reactivity with other proteins

### Storage

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

## Anti-Grp75 Picoband Antibody - Protein Information

**Name** HSPA9 ([HGNC:5244](#))

**Synonyms** GRP75, HSPA9B, mt-HSP70

### Function

Chaperone protein which plays an important role in mitochondrial iron-sulfur cluster (ISC) biogenesis. Interacts with and stabilizes ISC cluster assembly proteins FXN, NFU1, NFS1 and ISCU (PubMed:<a href="http://www.uniprot.org/citations/26702583" target="\_blank">26702583</a>). Regulates erythropoiesis via stabilization of ISC assembly (PubMed:<a href="http://www.uniprot.org/citations/21123823" target="\_blank">21123823</a>, PubMed:<a href="http://www.uniprot.org/citations/26702583" target="\_blank">26702583</a>). May play a role in cell cycle regulation via its interaction with and promotion of degradation of TP53 (PubMed:<a href="http://www.uniprot.org/citations/24625977" target="\_blank">24625977</a>, PubMed:<a href="http://www.uniprot.org/citations/26634371" target="\_blank">26634371</a>). May play a role in the control of cell proliferation and cellular aging (By similarity). Molecular adapter that regulates mitochondrial calcium-dependent apoptosis by coupling two calcium channels, ITPR1 and VDAC1, at the mitochondria-associated endoplasmic reticulum (ER) membrane to facilitate calcium transport from the ER lumen to the mitochondria intermembrane space, thus providing calcium for the downstream calcium channel MCU that directly releases it into mitochondria matrix (By similarity).

### Cellular Location

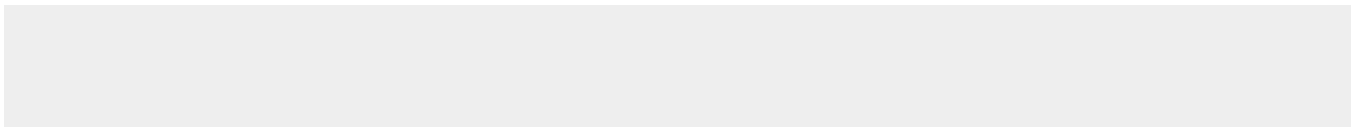
Mitochondrion. Nucleus, nucleolus. Cytoplasm. Mitochondrion matrix {ECO:0000250|UniProtKB:P48721}. Note=Found in a complex with HSPA9 and VDAC1 at the endoplasmic reticulum-mitochondria contact sites {ECO:0000250|UniProtKB:P48721}

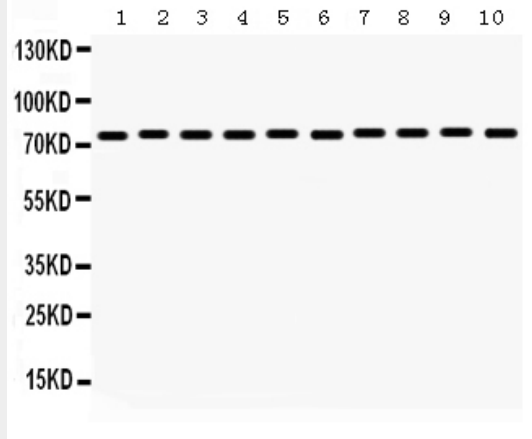
## Anti-Grp75 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

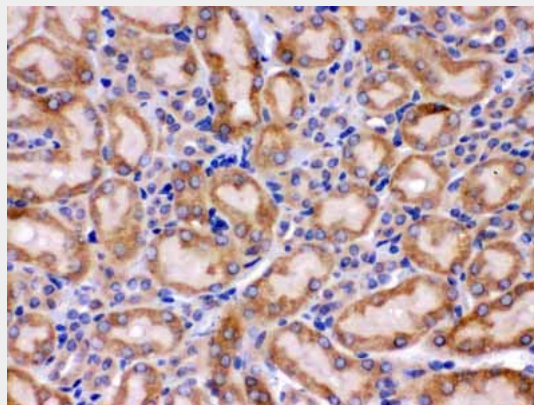
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-Grp75 Picoband Antibody - Images

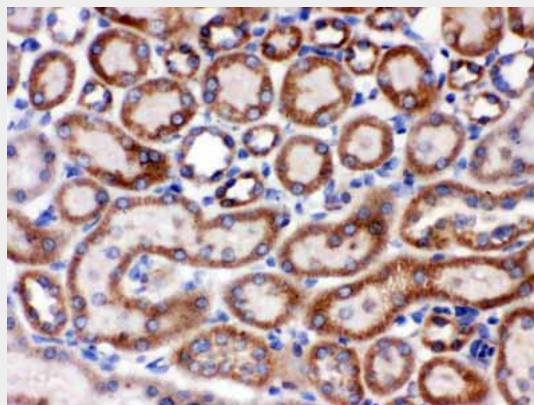




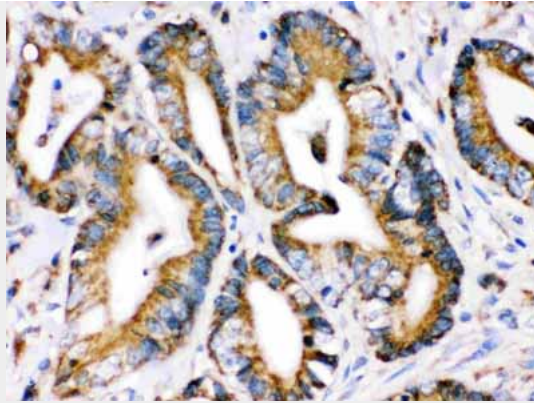
Anti- Grp75 Picoband antibody, ABO12328, Western blotting All lanes: Anti Grp75 (ABO12328) at 0.5ug/ml  
Lane 1: Rat Liver Tissue Lysate at 50ug  
Lane 2: Rat Thymus Tissue Lysate at 50ug  
Lane 3: Rat Testis Tissue Lysate at 50ug  
Lane 4: Mouse Liver Tissue Lysate at 50ug  
Lane 5: Mouse Thymus Tissue Lysate at 50ug  
Lane 6: Mouse Testis Tissue Lysate at 50ug  
Lane 7: HELA Whole Cell Lysate at 40ug  
Lane 8: MCF-7 Whole Cell Lysate at 40ug  
Lane 9: SW620 Whole Cell Lysate at 40ug  
Lane 10: SMMC Whole Cell Lysate at 40ug  
Predicted bind size: 74KD  
Observed bind size: 74KD



Anti- Grp75 Picoband antibody, ABO12328, IHC(P) IHC(P): Mouse Kidney Tissue



Anti- Grp75 Picoband antibody, ABO12328, IHC(P) IHC(P): Rat Kidney Tissue



Anti- Grp75 Picoband antibody, ABO12328,IHC(P)IHC(P): Human Intestinal Cancer Tissue

#### **Anti-Grp75 Picoband Antibody - Background**

HSPA9 (heat shock 70kDa protein 9 (mortalin)), also known as GRP75, mot-2, mthsp75, PBP74, HSPA9B, MORTALIN or MORTALIN, PERINUCLEAR, is a highly conserved member of the HSP70 family of proteins. It functions as a chaperone in the mitochondria, cytoplasm, and centrosome. The HSPA9 gene is mapped to chromosome 5q31.2 based on an alignment of the HSPA9 sequence with the genomic sequence. Knockdown of HSPA9 in erythroid cultures was associated with an increased number of cells in the G0/G1 phase of the cell cycle and accelerated apoptosis. Knockdown of Hspa9 in mouse bone marrow cells, followed by transplantation into wildtype recipients, also resulted in loss of erythroid cell number. Haploinsufficiency for HSPA9 may contribute to abnormal hematopoiesis in myelodysplastic syndromes. This protein plays a role in the control of cell proliferation.