

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

Anti-Grp75 Picoband Antibody - Product Information

Application	WB, IHC
Primary Accession	P38646
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 Na₂HPO₄, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human Grp75 (646-679aa KLFEMAYKKMASEREGSGSGTGEQKEDQKEEKQ), 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 reconstitution, 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: [26702583](http://www.uniprot.org/citations/26702583)). Regulates erythropoiesis via stabilization of ISC assembly (PubMed: [21123823](http://www.uniprot.org/citations/21123823), PubMed: [26702583](http://www.uniprot.org/citations/26702583)). May play a role in cell cycle regulation via its interaction with and promotion of degradation of TP53 (PubMed: [24625977](http://www.uniprot.org/citations/24625977), PubMed: [26634371](http://www.uniprot.org/citations/26634371)). May play a role in the control of cell proliferation and cellular aging (By similarity).

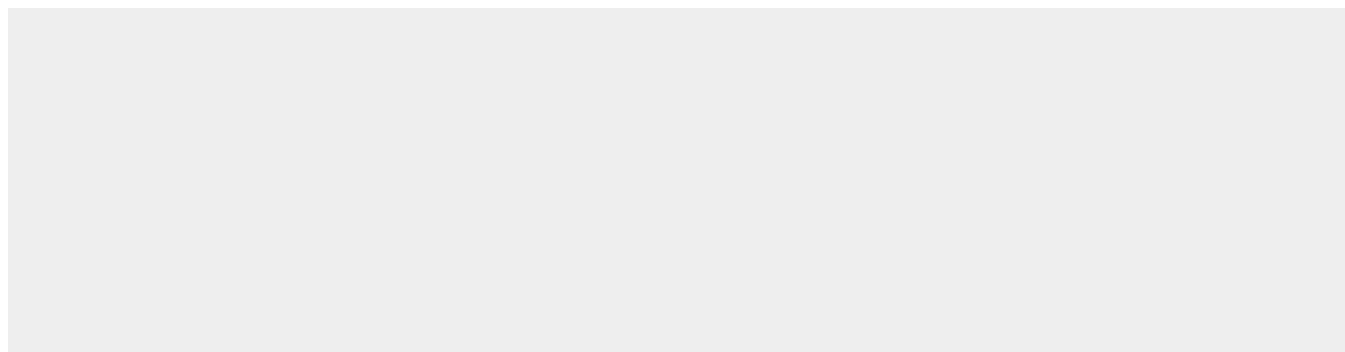
Cellular Location

Mitochondrion. Nucleus, nucleolus. Cytoplasm

Anti-Grp75 Picoband Antibody - Protocols

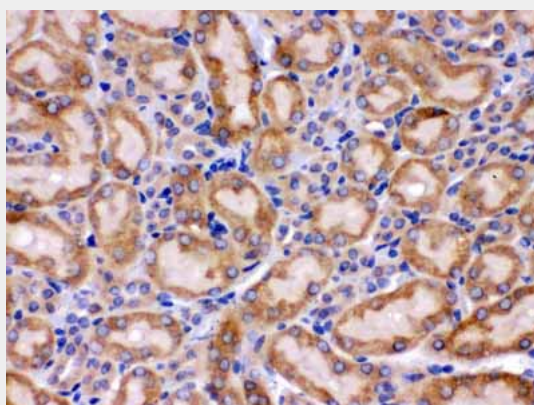
Provided below are standard protocols that you may find useful for product applications.

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

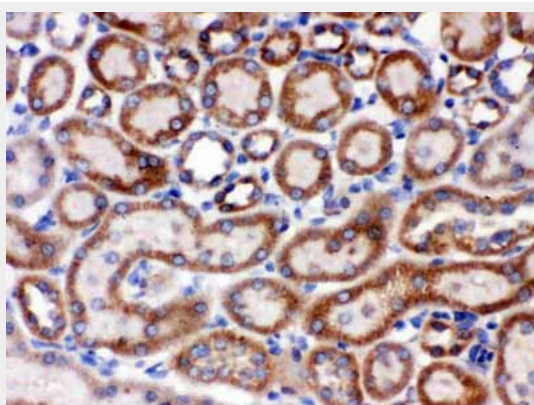
Anti-Grp75 Picoband Antibody - Images



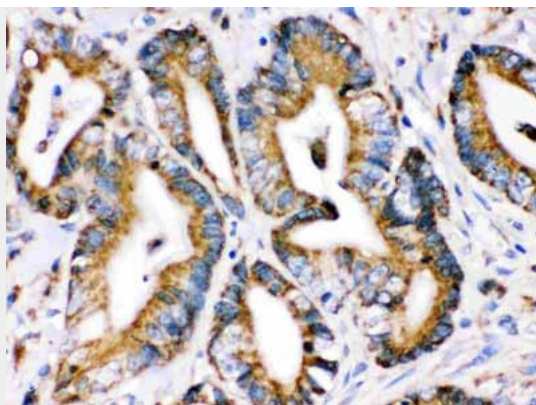
Anti- Grp75 Picoband antibody, ABO12328, Western blotting All lanes: Anti Grp75 (ABO12328) at 0.5ug/ml
Lane 1: Rat Liver Tissue Lysate at 50ug
Lane 2: Rat Thymus Tissue Lysate at 50ug
Lane 3: Rat Testis Tissue Lysate at 50ug
Lane 4: Mouse Liver Tissue Lysate at 50ug
Lane 5: Mouse Thymus Tissue Lysate 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.