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# HSP60 (Heat Shock Protein 60) (Mitochondrial Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone HSPD1/875 ]
Catalog # AH11468

## Product Information

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| **Application** | IF, FC |
| **Primary Accession** | P10809 |
| **Other Accession** | 3329, 595053 |
| **Reactivity** | Human, Mouse, Rat, Hamster, Monkey, Chicken, Guinea Pig |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgG1, kappa |
| **Clone Names** | HSPD1/875 |
| **Calculated MW** | 61055 |

## Additional Information

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| **Gene ID** | 3329 |
| **Other Names** | 60 kDa heat shock protein, mitochondrial, 60 kDa chaperonin, Chaperonin 60, CPN60, Heat shock protein 60, HSP-60, Hsp60, HuCHA60, Mitochondrial matrix protein P1, P60 lymphocyte protein, HSPD1, HSP60 |
| **Application Note** | IF~~1:50~200 FC~~1:10~50 |
| **Storage** | Store at 2 to 8°C.Antibody is stable for 24 months. |
| **Precautions** | HSP60 (Heat Shock Protein 60) (Mitochondrial Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | HSPD1 |
| **Synonyms** | HSP60 |
| **Function** | Chaperonin implicated in mitochondrial protein import and macromolecular assembly. Together with Hsp10, facilitates the correct folding of imported proteins. May also prevent misfolding and promote the refolding and proper assembly of unfolded polypeptides generated under stress conditions in the mitochondrial matrix (PubMed:11422376, PubMed:1346131). The functional units of these chaperonins consist of heptameric rings of the large subunit Hsp60, which function as a back- to-back double ring. In a cyclic reaction, Hsp60 ring complexes bind one unfolded substrate protein per ring, followed |

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| | by the binding of ATP and association with 2 heptameric rings of the co-chaperonin Hsp10. This leads to sequestration of the substrate protein in the inner cavity of Hsp60 where, for a certain period of time, it can fold undisturbed by other cell components. Synchronous hydrolysis of ATP in all Hsp60 subunits results in the dissociation of the chaperonin rings and the release of ADP and the folded substrate protein (Probable). |
| **Cellular Location** | Mitochondrion matrix. |

## Background

Recognizes a 60kDa protein, identified as the heat shock protein 60 (hsp60). A wide variety of environmental and pathophysiological stressful conditions trigger the synthesis of a family of proteins known as heat shock proteins (hsp □s), more appropriately called as stress response proteins (srp □s). hsp60 is a potential antigen in a number of autoimmune diseases. In human arthritis and in experimentally induced arthritis in animals, disease development coincides with the development of immune reactivity directed against not only bacterial hsp60, but also against its mammalian homolog.

## References

Schlesinger, M.J., et al. 1982. Heat Shock: from Bacteria to Man. Cold Spring Harbor, N.Y.: Cold Spring Harbor Laboratory

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.