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

Mouse Monoclonal Antibody [Clone SPM253]
Catalog # AH10487

Product Information

Application	WB, IF, FC, IHC-P
Primary Accession	P10809
Other Accession	3329, 595053
Reactivity	Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Chicken, Bovine, Sheep, Xenopus, Dog, Drosophila
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	SPM253
Calculated MW	61055

Additional Information

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	WB~~1:1000 IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA at 1.0mg/ml.
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

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 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.

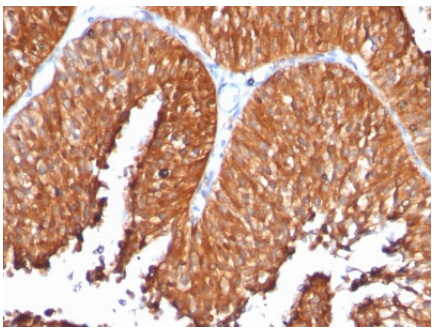
Background

Recognizes a 60kDa protein, identified as the heat shock protein 60 (hsp60). Its epitope is localized between aa 383-447 of human 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.

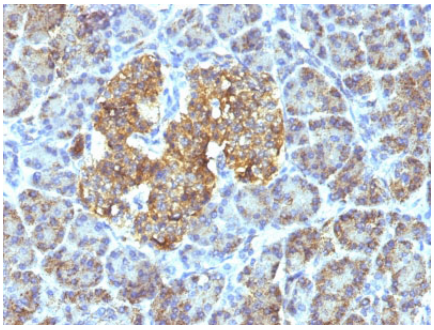
References

Boog CJ; de Graeff-Meeder ER; Lucassen MA; van der Zee R; Voorhorst-Ogink MM; van Kooten PJ; Geuze HJ; van Eden W. Two monoclonal antibodies generated against human hsp60 show reactivity with synovial membranes of patients with juvenile chronic arthritis. Journal of Experimental Medicine, 1992, 175(6):1805-10

Images



Formalin-fixed, paraffin-embedded human Bladder Carcinoma stained with HSP60 Monoclonal Antibody (SPM253)



Formalin-fixed, paraffin-embedded human Pancreas stained with HSP60 Monoclonal Antibody (SPM253).