

Mouse Hsp60 Monoclonal Antibody | anti-Hsp60 antibody

Hsp60 (N-terminal region) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA71646	Mouse	Human, Rat, Mouse	Immunocytochemistry, ELISA, Western Blot

PRODUCT SYNONYMS

Hsp60; Monoclonal Antibody; Hsp60 (N-terminal region) Antibody; Hsp60 (N-terminal region); anti-Hsp60 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Rat, Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Number	M438
Specificity	This antibody detects a 60kDa* protein corresponding to the apparent molecular mass of Hsp60 on SDS-PAGE immunoblots of human Jurkat and rat A7r5 cells. In immunocytochemistry, anti-Hsp60 specifically stains mitochondria in paraformaldehyde fixed and NP-40 permeabilized cells.
Purity/Purification	Protein A chromatography
Form/Format	Mouse monoclonal purified with protein A chromatography is supplied in 100ul phosphate-buffered saline, 50% glycerol, 1mg/ml BSA, and 0.05% sodium azide.
Applicable Applications for anti-Hsp60 antibody	ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Immunogen	Clone M438 was generated from a recombinant protein corresponding to amino acid residues in the N-terminal region of human Hsp60. This sequence has high homology to similar regions in rat and mouse Hsp60
Preparation and Storage	Store at -20 degree C. Stable for 1 year.

IMAGES



WB (Western Blot)

Western blot image of cell structure markers in NCI-H1915 lung carcinoma cells. The blot was probed with anti-Vimentin intermediate filament protein VM4341 (lane 1), anti-Nucleoporin p62nM4361 (lane 2), anti-Hsp60 mitochondrial protein HM4381 (lane 3), and anti-Calnexin endoplasmic reticulum protein CM4371 (lane 4).



ICC (Immunocytochemistry)

Immunocytochemical labeling of Hsp60 in mitochondria in paraformaldehyde-fixed and NP40-permeabilized A7r5 cells. The cells were labeled with mouse monoclonal Hsp60 (HM4381). The antibody was detected using goat anti-mouse DyLight 488.

ADDITIONAL INFORMATION

Related Product Information for anti-Hsp60 antibody	Heat shock proteins (Hsp) are a family of highly conserved proteins that include both constitutively expressed (Hsp60, Hsp70, and Hsp90) and stress-induced (Hsp27 and Hsp72) proteins. Hsp60 is a mitochondrial protein that promotes protein folding and facilitates proteolytic degradation of misfolded or denatured proteins in the mitochondria. Hsp10 interacts with Hsp60 to regulate its substrate binding and ATPase activity. In HeLa and Jurkat mitochondria, Hsp60 associates with caspase-3 to form a complex that dissociates and releases from the mitochondria during apoptosis. Hsp60 accelerates the maturation of procaspase-3 through its ATP-dependent "foldase" activity. In addition to its protein folding activity, Hsp60 can bind the toll-like receptor-4 complex leading to production of TNFalpha and stimulation of a pro-inflammatory response in macrophages. Thus, the protein folding function of Hsp60 is involved in protein folding in both normal and apoptotic cells, while release of Hsp60 during necrosis is thought to stimulate a pro-inflammatory response.
References	Grundtman, C. et al. (2011) Arterioscler Thromb Vasc Biol. 31(5):960. Cappello, F. et al. (2008) Cancer Biol Ther. 7(6):801. Venner, T.J. et al. (1990) DNA Cell Biol. 9(8):545.

NCBI AND UNIPROT INFORMATION

NCBI GI #	31542947
NCBI GeneID	3329
NCBI Accession #	NP_002147.2
NCBI GenBank Nucleotide #	NM_002156.4
UniProt Accession #	P10809; Q38L19; Q9UCR6; B2R5M6
Molecular Weight	61,055 Da
NCBI Official Full Name	60 kDa heat shock protein, mitochondrial
NCBI Official Synonym Full Names	heat shock 60kDa protein 1 (chaperonin)
NCBI Official Symbol	HSPD1
NCBI Official Synonym Symbols	HLD4; CPN60; GROEL; HSP60; HSP65; SPG13; HSP-60; HuCHA60
NCBI Protein Information	60 kDa heat shock protein, mitochondrial; chaperonin 60; 60 kDa chaperonin; heat shock protein 65; P60 lymphocyte protein; mitochondrial matrix protein P1; short heat shock protein 60 Hsp60s1
UniProt Protein Name	60 kDa heat shock protein, mitochondrial
UniProt Gene Name	HSPD1
UniProt Synonym Gene Names	HSP60; CPN60; HSP-60; Hsp60
UniProt Entry Name	CH60_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/hsp60-antibody-clone-m438-immunocytochemistry-western-blot-elisa/71646>