

Hsp60 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22126a

Specification

Hsp60 Antibody - Product Information

Application	IF, WB, IHC-P, FC,E
Primary Accession	P10809
Other Accession	P31081 , Q5ZL72 , P18687 , Q39727 , P63038 , Q5NVM5 , P63039
Reactivity	Human, Mouse, Rat
Predicted	Bovine, Chicken, Hamster
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	61055

Hsp60 Antibody - 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

Target/Specificity

This Hsp60 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 396-430 amino acids from human Hsp60.

Dilution

IF~~1:25
WB~~1:16000
IHC-P~~1:25
FC~~1:25

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Hsp60 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Hsp60 Antibody - 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

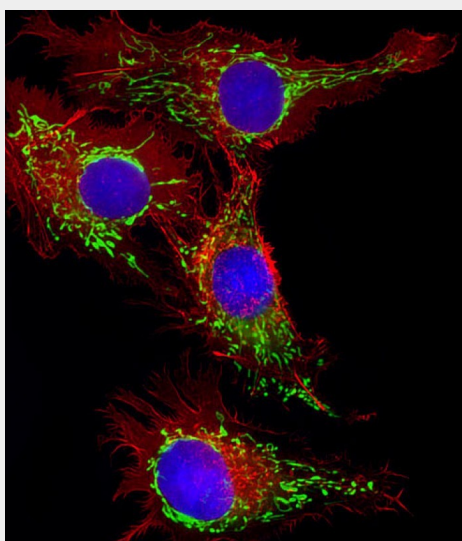
Mitochondrion matrix.

Hsp60 Antibody - Protocols

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

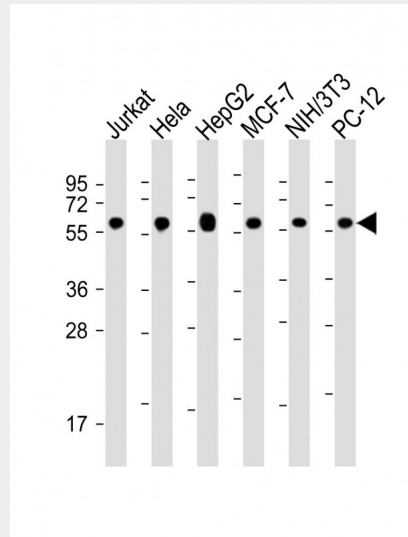
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Hsp60 Antibody - Images

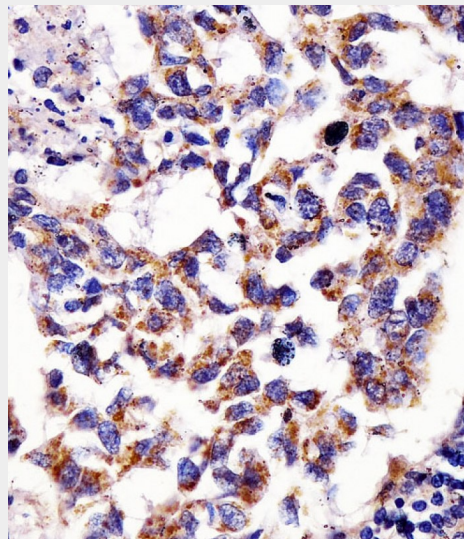


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (human liver hepatocellular carcinoma cell line) cells labeling Hsp60 with AP22116a at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary

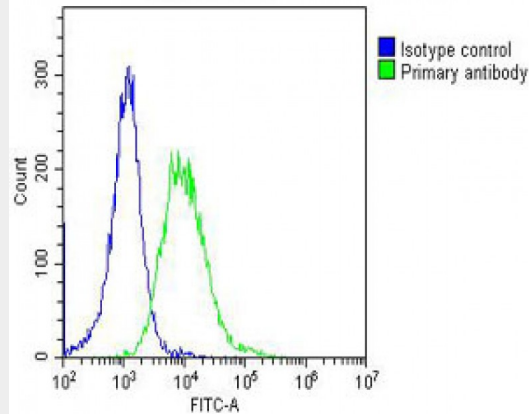
antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HepG2 cell line. The nuclear counter stain is DAPI (blue).



All lanes : Anti-Hsp60 Antibody at 1:16000 dilution Lane 1: Jurkat whole cell lysate Lane 2: HeLa whole cell lysate Lane 3: HepG2 whole cell lysate Lane 4: MCF-7 whole cell lysate Lane 5: NIH/3T3 whole cell lysate Lane 6: PC-12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 61 kDa Blocking/Dilution buffer: 5% NFDm/TBST.



AP22126a staining Hsp60 in human lung adenocarcinoma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Overlay histogram showing HeLa cells stained with AP22126a (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22126a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10⁶ cells) used under the same conditions. Acquisition of >10, 000 events was performed.

Hsp60 Antibody - Background

Implicated in mitochondrial protein import and macromolecular assembly. May facilitate 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.

Hsp60 Antibody - References

- Jindal S.,et al.Mol. Cell. Biol. 9:2279-2283(1989).
- Venner T.J.,et al.DNA Cell Biol. 9:545-552(1990).
- Hansen J.J.,et al.Hum. Genet. 112:71-77(2003).
- Tan J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
- Ota T.,et al.Nat. Genet. 36:40-45(2004).