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Anti-HSP60 Antibody [KO/KD Validated]

Catalog # AP51271

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P10809
Reactivity	Human, Mouse, Rat, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61055

Additional Information

Gene ID	3329
Other Names	HSP60; 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
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human HSP60. The exact sequence is proprietary.
Dilution	WB~~ 1;32000 IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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

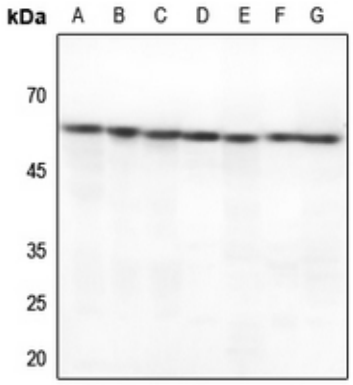
Hsp60 subunits results in the dissociation of the chaperonin rings and the release of ADP and the folded substrate protein (Probable).

Cellular Location Mitochondrion matrix.

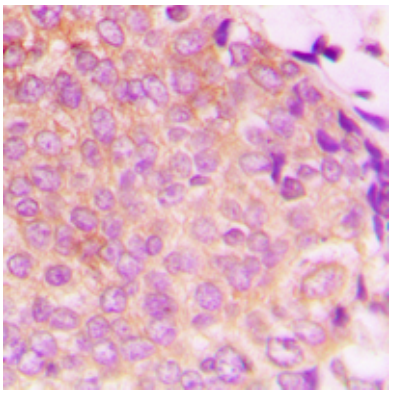
References

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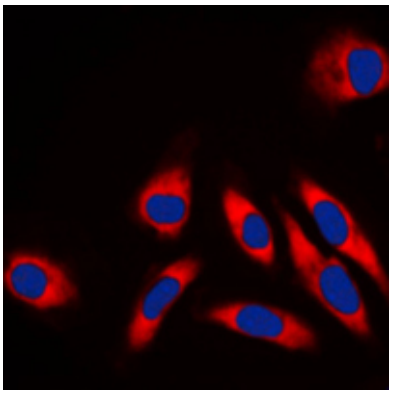
Images



Western blot analysis of HSP60 expression in HEK293T (A), Hela (B), DLD (C), mouse muscle (D), mouse kidney (E), rat muscle (F), rat kidney (G) whole cell lysates. (Predicted band size: 61 kD; Observed band size: 60 kD)

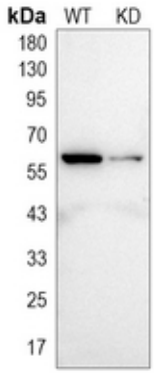


Immunohistochemical analysis of HSP60 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of HSP60 staining in NIH3T3 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

Western blot analysis of HSP60 expression in wild type (WT) and knockdown (KD) HeLa cell lysates.



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