

Anti-HSP60 Antibody (Monoclonal, LK1)

Catalog # ABO10438

Product Information

Application	WB, IHC-P
Primary Accession	P63039
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human, Rat
Clonality	Monoclonal
Format	Lyophilized
Description	Mouse IgG monoclonal antibody for HSP60, heat shock 60kDa protein 1 (chaperonin) (HSPD1) detection. Tested with WB, IHC-P in Human;rat;chicken. No cross reactivity with other proteins.
Reconstitution	Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Additional Information

Gene ID	63868
Other Names	60 kDa heat shock protein, mitochondrial, 60 kDa chaperonin, Chaperonin 60, CPN60, HSP-65, Heat shock protein 60, HSP-60, Hsp60, Mitochondrial matrix protein P1, Hspd1, Hsp60
Calculated MW	60955
Application Details	Immunohistochemistry(Paraffin-embedded Section), 4-8 μ g/ml, Human, chicken, rat, By Heat Western blot, 2-4 μ g/ml, Human, chicken, rat
Subcellular Localization	Mitochondrion matrix .
Source	Eukaryota
Protein Name	60 kDa heat shock protein, mitochondrial
Contents	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN ₃ as preservative.
Clone Names	LK1
Immunogen	Recombinant human heat shock protein 60(HSP60)
Purification	Ascites
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the chaperonin (HSP60) family.

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. 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.
Cellular Location	Mitochondrion matrix {ECO:0000250 UniProtKB:P10809}

Background

Heat shock 60KD protein(HSP60) is a member of the chaperonin class of protein factors and the nuclear encoded mitochondrial HSP60 is required for the assembly into oligomeric complexes of proteins imported into the mitochondrial matrix. HSP60 is linked head to head comprising approximately 17 kb and consist of 12 exons. HSP60 is a self-molecule, it can downregulate adaptive immune responses by upregulating Tregs innately through TLR2 signaling.

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