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KD-Validated Anti-Hsp60 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1245

Specification

KD-Validated Anti-Hsp60 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P10809
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 61 kDa , observed, 60 kDa KDa**
Gene Name	**HSPD1**
Aliases	**HSPD1; Heat Shock Protein Family D (Hsp60) Member 1; HSP60; 60 KDa Heat Shock Protein, Mitochondrial; Heat Shock 60kDa Protein 1 (Chaperonin); Mitochondrial Matrix Protein P1; P60 Lymphocyte Protein; 60 KDa Chaperonin; Chaperonin 60; HuCHA60; HSP-60; CPN60; GROEL; SPG13; Spastic Paraplegia 13 (Autosomal Dominant); Epididymis Secretory Sperm Binding Protein; Heat Shock 60kD Protein 1 (Chaperonin); Short Heat Shock Protein 60 Hsp60s1; Heat Shock Protein 65; Heat Shock Protein 60; EC 5.6.1.7; GroEL; HSP65; Hsp60; HLD4**
Immunogen	**A synthesized peptide derived from human Hsp60**

KD-Validated Anti-Hsp60 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**3329**

Other Names
60 kDa heat shock protein, mitochondrial, 5.6.1.7, 60 kDa chaperonin, Chaperonin 60, CPN60, Heat shock protein 60, HSP-60, Hsp60, Heat shock protein family D member 1, HuCHA60, Mitochondrial matrix protein P1, P60 lymphocyte protein, HSPD1, HSP60

KD-Validated Anti-Hsp60 Rabbit Monoclonal 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).

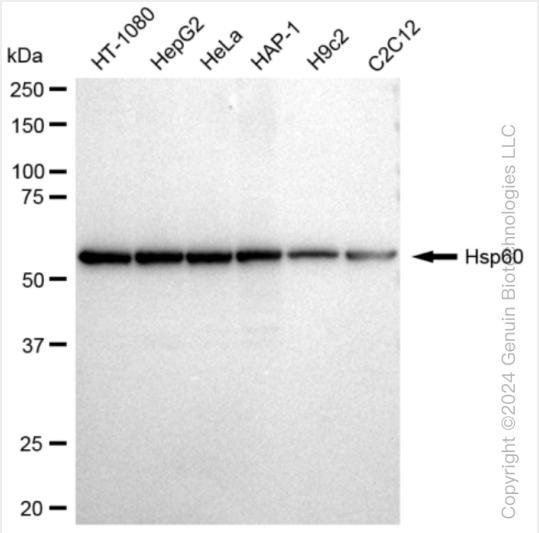
Cellular Location
Mitochondrion matrix.

KD-Validated Anti-Hsp60 Rabbit Monoclonal 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 Cytomety
- Cell Culture

KD-Validated Anti-Hsp60 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-Hsp60 antibody (Cat#AGI1245). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Hsp60 antibody (Cat#AGI1245, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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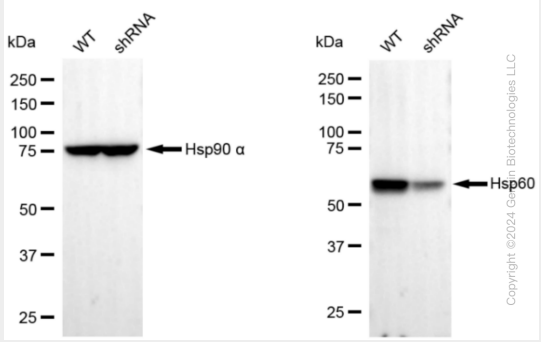
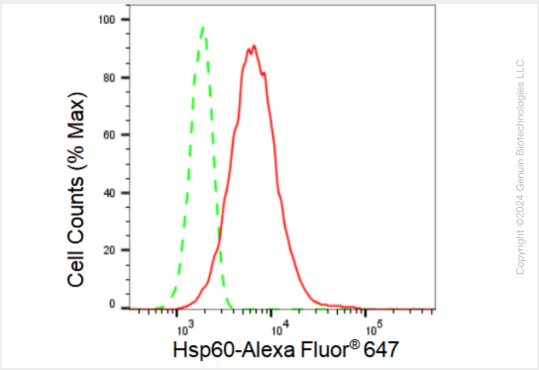
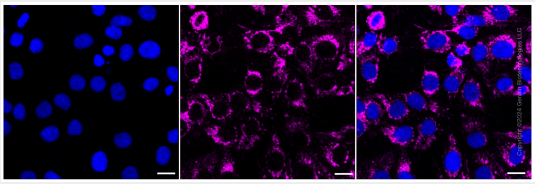


Western blotting analysis using anti-Hsp60 antibody (Cat#AGI1245). Hsp60 expression in wild type (WT) and Hsp60 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-Hsp60 antibody (Cat#AGI1245, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Hsp60 expression in HT-1080 cells using Hsp60 antibody (Cat#AGI1245, 1:2,000). Green, isotype control; red, Hsp60.



Immunocytochemical staining of HT-1080 cells with Hsp60 antibody (Cat#AGI1245, 1:1,000). Nuclei were stained blue with DAPI; Hsp60 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.