

## **KD-Validated Anti-HSPD1 Rabbit Polyclonal Antibody**

Rabbit polyclonal antibody Catalog # AGI1769

### **Specification**

# KD-Validated Anti-HSPD1 Rabbit Polyclonal Antibody - Product Information

**WB Application Primary Accession** P10809

Reactivity Rat, Human, Mouse

Clonality **Polyclonal** Isotype Rabbit IgG

Predicted, 61 kDa, o bserved, 60 kDa Calculated MW

**KDa HSPD1** 

Gene Name Aliases

**HSPD1**; Heat Shock Protein Family D (Hsp60) Member 1; HSP60; GroEL; 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; 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; HSP65;** 

Hsp60: HLD4

**Immunogen** A synthesized peptide derived from human

### KD-Validated Anti-HSPD1 Rabbit Polyclonal 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-HSPD1 Rabbit Polyclonal 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:<a

href="http://www.uniprot.org/citations/11422376" target="\_blank">11422376</a>, PubMed:<a href="http://www.uniprot.org/citations/1346131" target="\_blank">1346131</a>). 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).

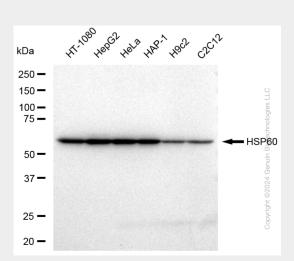
**Cellular Location**Mitochondrion matrix.

## **KD-Validated Anti-HSPD1 Rabbit Polyclonal Antibody - Protocols**

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

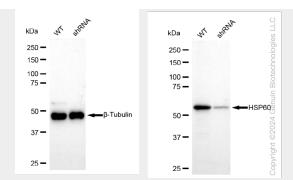
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## KD-Validated Anti-HSPD1 Rabbit Polyclonal Antibody - Images



Western blotting analysis using anti-HSP60 antibody (Cat#AGI1769). 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#AGI1769, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.





Western blotting analysis using anti-HSP60 antibody (Cat#AGI1769). HSP60 expression in wild type (WT) and HSP60 shRNA knockdown (KD) HeLa cells with 30  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-HSP60 antibody (Cat#AGI1769, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.