

**HSPD1 / HSP60 Antibody (clone LK-2)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS12899****Specification**

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**HSPD1 / HSP60 Antibody (clone LK-2) - Product Information**

Application	IHC
Primary Accession	<a href="#">P10809</a>
Reactivity	Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Chicken, Bovine, Guinea Pig, Dog
Host	Mouse
Clonality	Monoclonal
Calculated MW	61kDa KDa

**HSPD1 / HSP60 Antibody (clone LK-2) - 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**

Detects an ~60 kD protein, corresponding to the apparent molecular mass of Hsp60 on SDS-PAGE immunoblots, in samples from human, mouse, rat, bovine, chicken, dog, guinea pig, hamster, monkey, pig, rabbit, plant (spinach), Borrelia, E. coli, helicobac ...

**Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. For maximum product recovery, after thawing, centrifuge the product vial before removing cap.

**Precautions**

HSPD1 / HSP60 Antibody (clone LK-2) is for research use only and not for use in diagnostic or therapeutic procedures.

**HSPD1 / HSP60 Antibody (clone LK-2) - 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

[1346131](http://www.uniprot.org/citations/1346131), PubMed:<[11422376](http://www.uniprot.org/citations/11422376)>). 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**

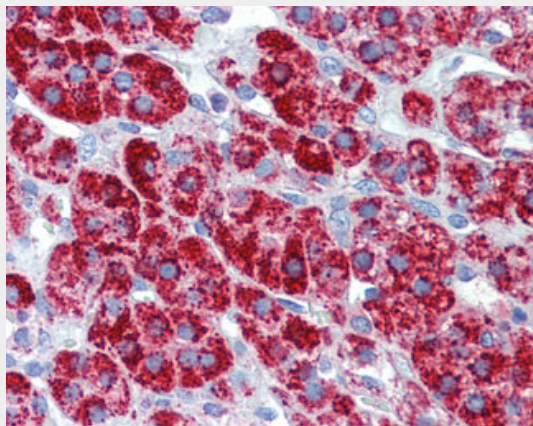
Mitochondrion matrix.

#### **HSPD1 / HSP60 Antibody (clone LK-2) - Protocols**

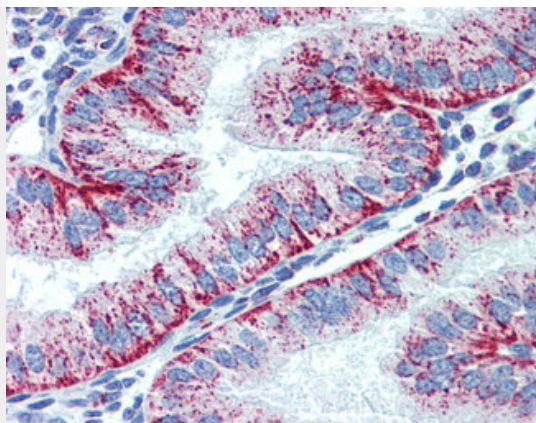
Provided below are standard protocols that you may find useful for product applications.

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

#### **HSPD1 / HSP60 Antibody (clone LK-2) - Images**



Anti-HSPD1 antibody IHC of human adrenal.



Anti-HSPD1 antibody IHC of human uterus.

#### **HSPD1 / HSP60 Antibody (clone LK-2) - 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.

#### **HSPD1 / HSP60 Antibody (clone LK-2) - 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).