

## Product datasheet for **AP23245PU-N**

### Hsp60 (HSPD1) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: At 0.5-1µg/ml with the appropriate system to detect HSP60 in cells and tissues. Immunohistochemistry on paraffin sections: At 0.5-1µg/ml to detect HSP60 in formalin fixed and paraffin embedded tissues. Boiling the sections is required. Immunohistochemistry on frozen sections. Immunocytochemistry.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide mapping at the middle region of human HSP60
Specificity:	This antibody detects HSP60 in the middle.
Formulation:	50% glycerol, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> State: Aff - Purified State: Lyophilized Ig fraction
Reconstitution Method:	1.2% sodium acetate or neutral PBS. If 0.5ml of PBS is used, the antibody concentration will be 100µg/ml.
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at 2 - 8 °C for up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	heat shock protein family D (Hsp60) member 1
Database Link:	<a href="#">Entrez Gene 15510 Mouse</a> <a href="#">Entrez Gene 63868 Rat</a> <a href="#">Entrez Gene 3329 Human P10809</a>



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**Background:**

Heat shock 60KD protein (HSP60) is a member of the chaperonin class of protein factors, which include the Escherichia coli groEL protein and the Rubisco subunit-binding protein of chloroplasts. It acts as a costimulator of human regulatory CD4-positive/CD25 -positive T cells, which inhibit lymphoproliferation and IFNG and TNFsecretion by CD4-positive and CD8-positive T cells. HSP60 enhances Treg activity via TLR2, leading to activation of an intracellular signaling cascade that included p38, as well as inhibition of ERK phosphorylation. Suppression of target T cells is mediated by both cell-to-cell contact and by secretion of TGFB and IL10, and it leads to downregulation of ERK, NFkB, and TBET expression. The self-molecule HSP60 can downregulate adaptive immune responses by upregulating Tregs through TLR2 signaling.

**Synonyms:**

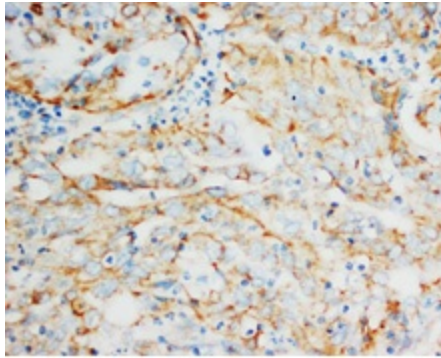
HSP-60, HSPD1, Heat shock protein 60, Chaperonin 60, HuCHA60, GROEL, GroEL Homolog, CPN60

**Protein Families:**

Druggable Genome, Stem cell - Pluripotency

**Protein Pathways:**

RNA degradation, Type I diabetes mellitus

**Product images:**

HSP60 Polyclonal Antibody