

# HSP 60 (H-300): sc-13966

## BACKGROUND

The heat shock proteins (HSPs) comprise a group of highly conserved, abundantly expressed proteins with diverse functions, including the assembly and sequestering of multiprotein complexes, transportation of nascent polypeptide chains across cellular membranes, and the regulation of protein folding. HSPs (also known as molecular chaperones) fall into six general families: HSP 90, HSP 70, HSP 60, the low molecular weight HSPs, the immunophilins and the HSP 110 family. The constitutively expressed mitochondrial protein HSP 60 shares the ability to recognize and stabilize proteins during folding, assembly and disassembly with other HSP family members. The mitochondrial and cytosolic localization of HSP 60, combined with its binding and catalysis of folding of newly synthesized proteins destined for the mitochondrial matrix, classify this protein as a molecular chaperone. An additional role of HSP 60 is to act as a cell surface marker for  $\gamma/\delta$  T cell recognition.

## CHROMOSOMAL LOCATION

Genetic locus: HSPD1 (human) mapping to 2q33.1; Hspd1 (mouse) mapping to 1 C1.2.

## SOURCE

HSP 60 (H-300) is a rabbit polyclonal antibody raised against amino acids 274-573 mapping at the C-terminus of HSP 60 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

HSP 60 (H-300) is recommended for detection of HSP 60 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HSP 60 (H-300) is also recommended for detection of HSP 60 in additional species, including canine.

Suitable for use as control antibody for HSP 60 siRNA (h): sc-29351, HSP 60 siRNA (m): sc-35604, HSP 60 shRNA Plasmid (h): sc-29351-SH, HSP 60 shRNA Plasmid (m): sc-35604-SH, HSP 60 shRNA (h) Lentiviral Particles: sc-29351-V and HSP 60 shRNA (m) Lentiviral Particles: sc-35604-V.

Molecular Weight of HSP 60: 60 kDa.

Positive Controls: Mouse placenta tissue extract, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

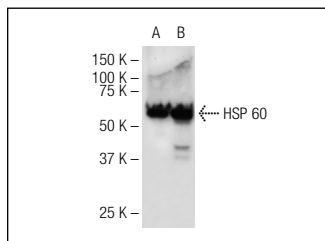
## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

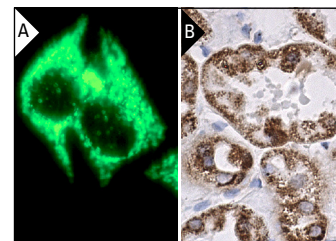
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



HSP 60 (H-300): sc-13966. Western blot analysis of HSP 60 expression in mouse placenta tissue extract (A) and HeLa whole cell lysate (B).



HSP 60 (H-300): sc-13966. Immunofluorescence staining of methanol-fixed HeLa cells showing mitochondrial localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing granular cytoplasmic staining of cells in tubules (B).

## SELECT PRODUCT CITATIONS

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- Boohaker, R.J., et al. 2011. BAX supports the mitochondrial network, promoting bioenergetics in nonapoptotic cells. *Am. J. Physiol., Cell Physiol.* 300: C1466-C1478.
- Zhang, W., et al. 2011. XIAP-associated factor 1 interacts with and attenuates the trans-activity of four and a Half LIM protein 2. *Mol. Carcinog.* 50: 199-207.



Try **HSP 60 (LK1): sc-59567** or **HSP 60 (C-10): sc-376240**, our highly recommended monoclonal alternatives to HSP 60 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **HSP 60 (LK1): sc-59567**.