

**Hsp90 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10284****Specification**

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**Hsp90 Antibody - Product Information**

Application	WB, IHC, IP
Primary Accession	<a href="#">P07900</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	84660

**Hsp90 Antibody - Additional Information****Gene ID** 3320

Application & Usage	Western blotting (0.5-4 µg/ml), in immunoprecipitation (10-20 µg/ml) and Immunohistochemistry (frozen sections, 10-20 µg/ml). However, the optimal concentrations should be determined individually. The antibody recognizes Hsp90α and Hsp90β of human, mouse, and rat origins.
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**Other Names**

HSP90AA1 , HSP90A , HSPCAL1 , HSPCAL4 , HSPN , HSPCA , HSP90N , LAP2 , HSPC1 , FLJ31884

**Target/Specificity**

Hsp90

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions**

## Precautions

Hsp90 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Hsp90 Antibody - Protein Information

**Name** HSP90AA1 ([HGNC:5253](#))

**Synonyms** HSP90A, HSPC1, HSPCA

## Function

Molecular chaperone that promotes the maturation, structural maintenance and proper regulation of specific target proteins involved for instance in cell cycle control and signal transduction. Undergoes a functional cycle that is linked to its ATPase activity which is essential for its chaperone activity. This cycle probably induces conformational changes in the client proteins, thereby causing their activation. Interacts dynamically with various co-chaperones that modulate its substrate recognition, ATPase cycle and chaperone function (PubMed:<a href="http://www.uniprot.org/citations/11274138" target="\_blank">11274138</a>, PubMed:<a href="http://www.uniprot.org/citations/12526792" target="\_blank">12526792</a>, PubMed:<a href="http://www.uniprot.org/citations/15577939" target="\_blank">15577939</a>, PubMed:<a href="http://www.uniprot.org/citations/15937123" target="\_blank">15937123</a>, PubMed:<a href="http://www.uniprot.org/citations/27353360" target="\_blank">27353360</a>, PubMed:<a href="http://www.uniprot.org/citations/29127155" target="\_blank">29127155</a>). Engages with a range of client protein classes via its interaction with various co-chaperone proteins or complexes, that act as adapters, simultaneously able to interact with the specific client and the central chaperone itself (PubMed:<a href="http://www.uniprot.org/citations/29127155" target="\_blank">29127155</a>). Recruitment of ATP and co-chaperone followed by client protein forms a functional chaperone. After the completion of the chaperoning process, properly folded client protein and co- chaperone leave HSP90 in an ADP-bound partially open conformation and finally, ADP is released from HSP90 which acquires an open conformation for the next cycle (PubMed:<a href="http://www.uniprot.org/citations/26991466" target="\_blank">26991466</a>, PubMed:<a href="http://www.uniprot.org/citations/27295069" target="\_blank">27295069</a>). Plays a critical role in mitochondrial import, delivers preproteins to the mitochondrial import receptor TOMM70 (PubMed:<a href="http://www.uniprot.org/citations/12526792" target="\_blank">12526792</a>). Apart from its chaperone activity, it also plays a role in the regulation of the transcription machinery. HSP90 and its co-chaperones modulate transcription at least at three different levels (PubMed:<a href="http://www.uniprot.org/citations/25973397" target="\_blank">25973397</a>). In the first place, they alter the steady-state levels of certain transcription factors in response to various physiological cues (PubMed:<a href="http://www.uniprot.org/citations/25973397" target="\_blank">25973397</a>). Second, they modulate the activity of certain epigenetic modifiers, such as histone deacetylases or DNA methyl transferases, and thereby respond to the change in the environment (PubMed:<a href="http://www.uniprot.org/citations/25973397" target="\_blank">25973397</a>). Third, they participate in the eviction of histones from the promoter region of certain genes and thereby turn on gene expression (PubMed:<a href="http://www.uniprot.org/citations/25973397" target="\_blank">25973397</a>). Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes (PubMed:<a href="http://www.uniprot.org/citations/11276205" target="\_blank">11276205</a>). Antagonizes STUB1-mediated inhibition of TGF-beta signaling via inhibition of STUB1-mediated SMAD3 ubiquitination and degradation (PubMed:<a href="http://www.uniprot.org/citations/24613385" target="\_blank">24613385</a>). Mediates the association of TOMM70 with IRF3 or TBK1 in mitochondrial outer membrane which promotes host antiviral response (PubMed:<a href="http://www.uniprot.org/citations/20628368" target="\_blank">20628368</a>, PubMed:<a href="http://www.uniprot.org/citations/25609812" target="\_blank">25609812</a>).

## Cellular Location

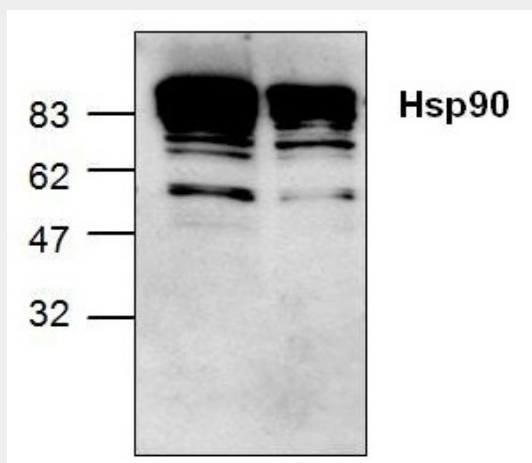
Nucleus {ECO:0000250|UniProtKB:P07901}. Cytoplasm {ECO:0000250|UniProtKB:P07901}. Melanosome. Cell membrane. Mitochondrion. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

## Hsp90 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 Cytometry](#)
- [Cell Culture](#)

## Hsp90 Antibody - Images



Western blot analysis of Hsp90 expression in Jurkat cell lysate (Lane 1) and mouse small intestine tissue lysate (lane 2).

## Hsp90 Antibody - Background

Heat shock proteins (HSPs) are ubiquitously expressed in all organisms. A major function of HSP90 and other HSPs is to act as molecular chaperones. HSP90 forms a complex with glucocorticoid receptor (GR), rendering the non ligand-bound receptor transcriptionally inactive. HSP 90 binds the GR as a heterocomplex composed of either HSP56 or cyclophilin-40, forming an aporeceptor complex. HSP90 also exists as a dimer with other proteins such as p60/sti1 and p23, forming an aporeceptor complex with estrogen and androgen receptors.