

**Hsp90 Antibody**  
**Purified Mouse Monoclonal Antibody (Mab)**  
**Catalog # AW5390**

**Specification**

**Hsp90 Antibody - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">P07900</a>
Other Accession	<a href="#">P08238</a>
Reactivity	Human
Predicted	Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	H=85,98;M=85 KDa
Isotype	IgG1,λ
Antigen Source	HUMAN

**Hsp90 Antibody - Additional Information**

**Gene ID** 3320

**Antigen Region**

150-400

**Other Names**

Heat shock protein HSP 90-alpha, Heat shock 86 kDa, HSP 86, HSP86, Lipopolysaccharide-associated protein 2, LAP-2, LPS-associated protein 2, Renal carcinoma antigen NY-REN-38, HSP90AA1, HSP90A, HSPC1, HSPCA

**Dilution**

WB~~1:1000

IHC-P~~N/A

**Target/Specificity**

This antibody is generated from a mouse immunized with a KLH conjugated synthetic peptide between 150-400 amino acids from human.

**Format**

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**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

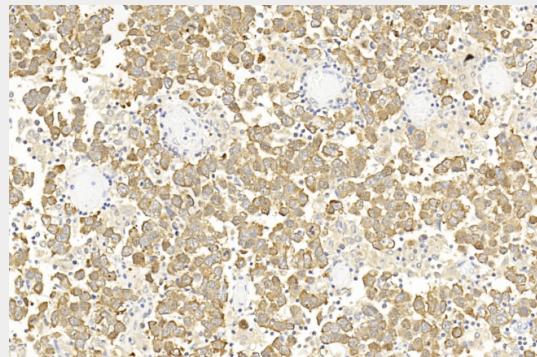
Nucleus {ECO:0000250|UniProtKB:P07901}. Cytoplasm {ECO:0000250|UniProtKB:P07901}. Melanosome. Cell membrane. Mitochondrion. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

### Hsp90 Antibody - Protocols

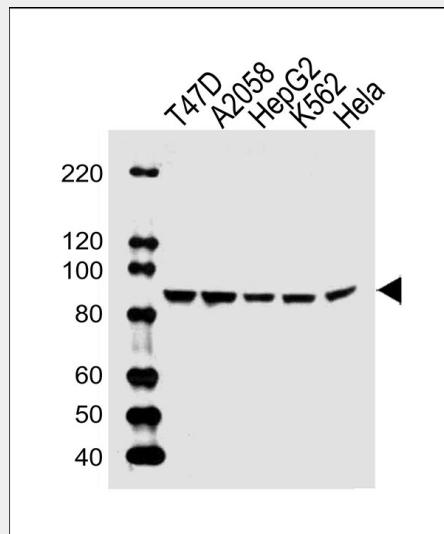
Provided below are standard protocols that you may find useful for product applications.

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

### Hsp90 Antibody - Images



Immunohistochemical analysis of paraffin-embedded Human Seminoma section using Anti-Hsp90 Antibody (Cat#AW5390). AW5390 was diluted at 1:200 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



All lanes : Anti-Hsp90 Antibody at 1:1000 dilution Lane 1: T47D whole cell lysates Lane 2: A2058 whole cell lysates Lane 3: HepG2 whole cell lysates Lane 4: K562 whole cell lysates Lane 5: Hela whole cell lysates Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 85 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

### Hsp90 Antibody - Background

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#### **Hsp90 Antibody - References**

Soeda E.,et al.Nucleic Acids Res. 17:7108-7108(1989).  
Yamazaki M.,et al.Agric. Biol. Chem. 54:3163-3170(1990).  
Hickey E.,et al.Mol. Cell. Biol. 9:2615-2626(1989).  
Chen B.,et al.Genomics 86:627-637(2005).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).