

## Recombinant Hsp90 alpha/beta Monoclonal Antibody

Catalog No. E-AB-81568

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

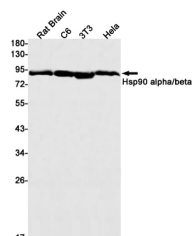
### Description

<b>Reactivity</b>	Human,Mouse,Rat
<b>Immunogen</b>	Recombinant protein of human Hsp90 beta
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Clone</b>	R08-8A1
<b>Purification</b>	Affinity Purified
<b>Conjugation</b>	Unconjugated
<b>Buffer</b>	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% protective protein

### Applications Recommended Dilution

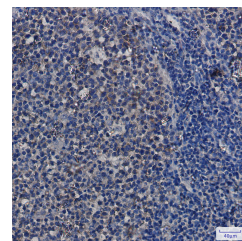
<b>WB</b>	1:1000-1:2000
<b>IHC</b>	1:50-1:200
<b>IF</b>	1:50-1:200

### Data

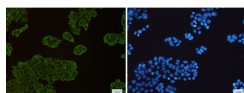


Western blot detection of Hsp90 alpha/beta in Rat Brain, C6, 3T3, HeLa cell lysates using Hsp90 alpha/beta Rabbit mAb (1:1000 diluted). Predicted band size: 85, 83 kDa. Observed band size: 90 kDa.

**Observed Mw: 90 kDa**  
**Calculated Mw: 85/83 kDa**



Immunohistochemistry of Hsp90 alpha/beta in paraffin-embedded Human tonsil using Hsp90 alpha/beta Rabbit mAb at dilution 1:50



Immunofluorescence of Hsp90 alpha/beta (green) in HeLa cells using Hsp90 alpha/beta Rabbit mAb at dilution 1:200, and DAPI (blue)

### For Research Use Only

## Preparation & Storage

**Storage**                      Store at -20°C. Avoid freeze / thaw cycles.

## Background

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. 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:16478993, PubMed:19696785). 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. 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:27295069, PubMed:26991466). 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. In the first place, they alter the steady-state levels of certain transcription factors in response to various physiological cues. 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. Third, they participate in the eviction of histones from the promoter region of certain genes and thereby turn on gene expression (PubMed:25973397). Antagonizes STUB1-mediated inhibition of TGF-beta signaling via inhibition of STUB1-mediated SMAD3 ubiquitination and degradation (PubMed:24613385). Promotes cell differentiation by chaperoning BIRC2 and thereby protecting from auto-ubiquitination and degradation by the proteasomal machinery (PubMed:18239673). Main chaperone that is involved in the phosphorylation/activation of the STAT1 by chaperoning both JAK2 and PRKCE under heat shock and in turn, activates its own transcription (PubMed:20353823).

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