10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-Hsp90 beta Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1241

Specification

KD-Validated Anti-Hsp90 beta Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P08238
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 83 kDa , observed, 85 kDa KDa**
Gene Name	**HSP90AB1**
Aliases	**HSP90AB1; Heat Shock Protein 90 Alpha Family Class B Member 1; HSPC2; HSPCB; Heat Shock Protein 90kDa Alpha (Cytosolic), Class B Member 1; Heat Shock 90kD Protein 1, Beta; Heat Shock Protein HSP 90-Beta; Heat Shock 84 KDa; HSP90B; HSP84; Heat Shock Protein 90kDa Alpha Family Class B Member 1; Heat Shock 90kDa Protein 1, Beta; Heat Shock Protein 90 KDa; HSP90-Beta; D6S182; HSP 90; HSP 84**
Immunogen	**A synthesized peptide derived from human Hsp90 beta**

KD-Validated Anti-Hsp90 beta Rabbit Monoclonal Antibody - Additional Information

Gene ID	**3326**

Other Names
Heat shock protein HSP 90-beta, HSP 90, Heat shock 84 kDa, HSP 84, HSP84, Heat shock protein family C member 3, HSP90AB1 (HGNC:5258)

KD-Validated Anti-Hsp90 beta Rabbit Monoclonal Antibody - Protein Information

Name HSP90AB1 (HGNC:5258)

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 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:<a href="http://www.uniprot.org/citations/19696785"

target="_blank">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:26991466, PubMed:27295069). 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. They first 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 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). Involved in the translocation into ERGIC (endoplasmic reticulum-Golgi intermediate compartment) of leaderless cargos (lacking the secretion signal sequence) such as the interleukin 1/IL-1; the translocation process is mediated by the cargo receptor TMED10 (PubMed:32272059).

Cellular Location
Cytoplasm. Melanosome Nucleus. Secreted. Cell membrane. Dynein axonemal particle {ECO:0000250|UniProtKB:Q6AZV1}. Cell surface. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065) Translocates with BIRC2 from the nucleus to the cytoplasm during differentiation (PubMed:18239673). Secreted when associated with TGFB1 processed form (LAP) (PubMed:20599762).

KD-Validated Anti-Hsp90 beta Rabbit Monoclonal 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 Cytomety
- Cell Culture

KD-Validated Anti-Hsp90 beta Rabbit Monoclonal Antibody - Images

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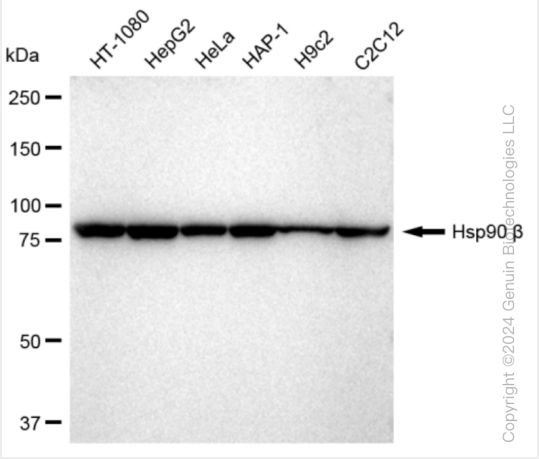
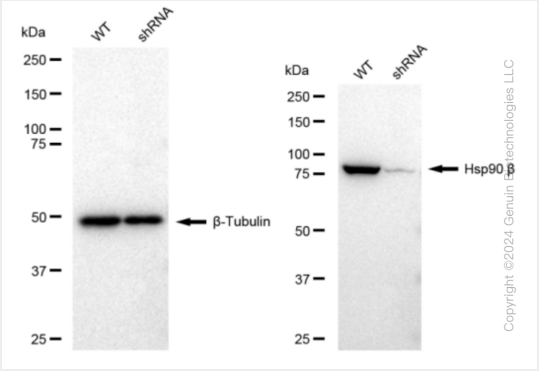
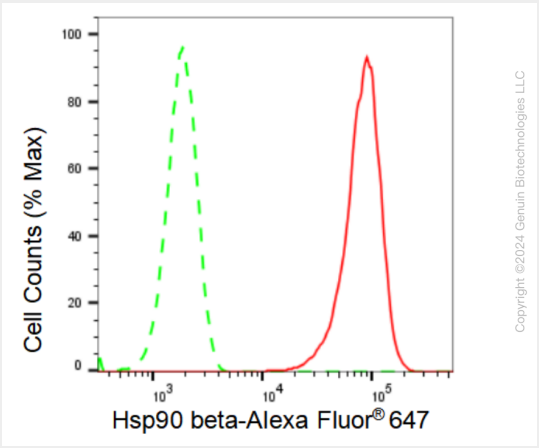


Western blotting analysis using anti-Hsp90 beta antibody (Cat#AGI1241). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Hsp90 beta antibody (Cat#AGI1241, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Hsp90 beta antibody (Cat#AGI1241). Hsp90 beta expression in wild type (WT) and Hsp90 beta shRNA knockdown (KD) 293T cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Hsp90 beta antibody (Cat#AGI1241, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Hsp90 beta expression in HepG2 cells using Hsp90 beta antibody (Cat#AGI1241, 1:2,000). Green, isotype control; red, Hsp90 beta.

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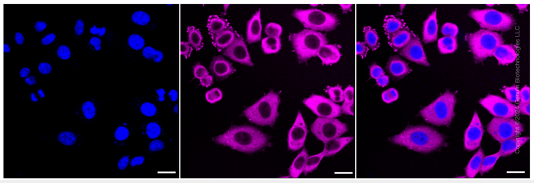

Immunocytochemical staining of HepG2 cells with Hsp90 beta antibody (Cat#AGI1241, 1:1,000). Nuclei were stained blue with DAPI; Hsp90 beta was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.