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Hsp90 beta Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52821

Product Information

Application	WB, ICC, IP
Primary Accession	P08238
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	83264

Additional Information

Gene ID	3326
Other Names	HSP90AB1;90 kda heat shock protein beta HSP90 beta;D6S182;FLJ26984;Heat shock 84 kDa;Heat shock 90kD protein 1, beta;Heat shock 90kDa protein 1 beta;Heat shock protein 90kDa alpha (cytosolic) class B member 1;Heat shock protein beta;Heat shock protein HSP 90 beta;Heat shock protein HSP 90-beta;HS90B_HUMAN;HSP 84;HSP 90;HSP 90 b;HSP 90b;HSP84;HSP90 BETA;hsp90ab1;HSP90B;HSPC2;HSPCB.
Dilution	WB~~1:2000 ICC~~1:200 IP~~1:500
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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: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).

Background

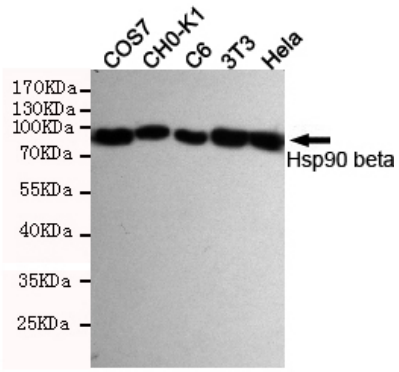
Molecular chaperone that promotes the maturation, structural maintenance and proper regulation of specific target proteins involved for instance in cell cycle control and signal transduction. Undergoes a functional cycle that is linked to its ATPase activity. This cycle probably induces conformational 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.

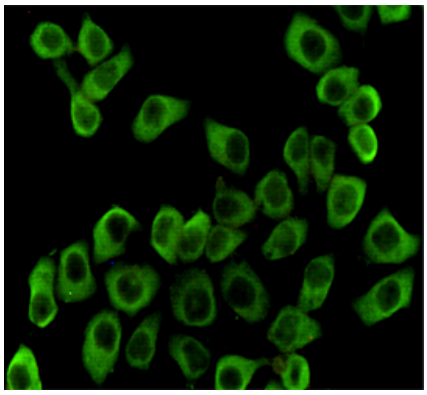
References

Rebbe N.F.,et al.Gene 53:235-245(1987).
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Hoffmann T.,et al.Gene 74:491-501(1988).
Lu L.,et al.Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
Wiemann S.,et al.Genome Res. 11:422-435(2001).

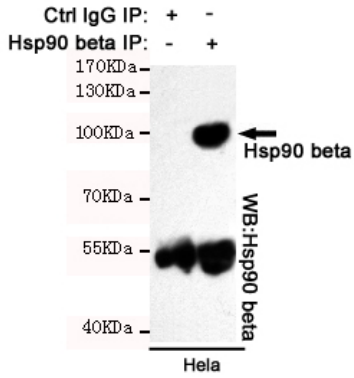
Images

Western blot detection of Hsp90 beta in Hela,3T3,C6,CHO-K1 and COS7 cell lysates using Hsp90 beta mouse mAb (1:2000 diluted).Exposion time: 4min.Predicted band size:90KDa.Observed band size:90KDa.





Immunocytochemistry staining of HeLa cells fixed with 4% Paraformaldehyde and using anti-Hsp90 beta mouse mAb (dilution 1:200).



Immunoprecipitation analysis of Hela cell lysates using Hsp90 beta mouse mAb.

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