abcam

ab13492

Anti-Hsp90 antibody [AC88]

Anti-Hsp90 antibody [AC88] (ab13492) is a mouse monoclonal antibody detecting Hsp90 in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Chinese hamster, Human, Mouse, Rat**.

- Over 130 publications
- Trusted since 2004

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Form	Liquid
Clonality	Monoclonal
Clone number	AC88
Purification technique	Affinity purification Protein G
Epitope	The epitope of this antibody has been mapped to amino acid residues 604-697 of the human Hsp90 sequence.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Chinese hamster

Dilution info	-
Notes	84.7 (alpha) , 83.2 (beta)

Species	Mouse
Dilution info	-
Notes	84.7 (alpha) , 83.2 (beta)

Species	Rat
Dilution info	-
Notes	84.7 (alpha) , 83.2 (beta)

Species	Human
Dilution info	-
Notes	84.7 (alpha) , 83.2 (beta)

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Chinese hamster, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Chinese hamster, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

Species	Chinese hamster, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information Hsp90

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot

Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Hsp90 antibody [AC88] (ab13492) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Chinese hamster, Human, Mouse, Rat samples.

Trusted by the scientific community
Anti-Hsp90 [AC88] (ab13492) was first used in a scientific publication in 2004 and has been cited over 130 times in peer-reviewed journals.

Reviewed by scientists
Anti-Hsp90 [AC88] (ab13492) has over 30 independent reviews from customers.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Hsp90 also known as heat shock protein 90 is a molecular chaperone with a mass of about 90 kDa. It assists in the proper folding of client proteins stabilization of proteins against heat stress and degradation of misfolded proteins. Hsp90 is present in various cellular compartments including the cytoplasm nucleus and mitochondria. It is highly expressed in most eukaryotic cells reflecting its fundamental role in maintaining cellular protein homeostasis. Additionally Hsp90 serves as a loading control in western blot experiments due to its consistent expression levels across samples.
Biological function summary	Hsp90 interacts with many co-chaperones to form multi-protein complexes that aid its function. This protein is necessary for the maturation and stability of many signaling proteins including steroid hormone receptors and kinases like the tyrosine kinase D7A. Hsp90's chaperone activity is ATP-dependent with its N-terminal domain binding and hydrolyzing ATP leading to conformational changes that promote protein folding and assembly. Its influence extends to regulating cell cycle control and apoptosis highlighting its importance in cellular processes.
Pathways	Hsp90 participates in key biological pathways such as the protein folding response and the MAPK signaling pathway. In the protein folding process Hsp90 collaborates with co-chaperones like Aha1 and p23 to ensure accurate protein synthesis and repair. Its role in the MAPK signaling pathway influences cell growth proliferation and differentiation interacting with proteins like Raf-1 and MEK. These interactions highlight Hsp90's involvement in signal transduction and cellular stress responses.
Associated diseases and disorders	Hsp90 is implicated in cancer and neurodegenerative diseases. Its overexpression often correlates with tumor progression and poor prognosis in cancers where it stabilizes client proteins like HER2 and AKT that drive oncogenic processes. In neurodegenerative disorders such as Alzheimer's disease altered Hsp90 function

affects the degradation of proteins like tau contributing to pathogenic protein aggregation. Understanding Hsp90's role in these conditions offers avenues for therapeutic interventions targeting its chaperone activity.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

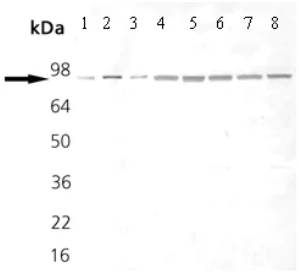
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

8 product images



Western blot - Anti-Hsp90 antibody [AC88] (ab13492)

This image was generated using the ascites version of the product.
All lanes:
Western blot - Anti-Hsp90 antibody [AC88] (ab13492) at 1/1000 dilution

Lane 1:
Hsp90 native human protein

Lane 2:
Hsp90 beta reombinant human protein

Lane 3:
Hsp90 alpha reombinant human protein

Lane 4:
Cell lysates prepared from heat shocked Hela cells

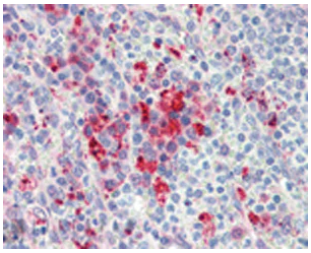
Lane 5:
Cell lysates prepared from heat shocked 3T3 cells

Lane 6:
Cell lysates prepared from heat shocked PC-12 cells

Lane 7:
Cell lysates prepared from heat shocked CHO-K1 cells

Lane 8:
Cell lysates prepared from heat shocked Rat-2 cells

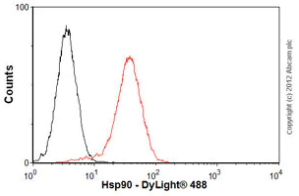
Predicted band size: 85 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp90 antibody [AC88] (ab13492)

Hsp90 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Hsp90 antibody

ab13492 staining Hsp90 in Human spleen tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Samples were incubated with primary antibody (10 ug/ml).
This image was generated using the ascites version of the product.

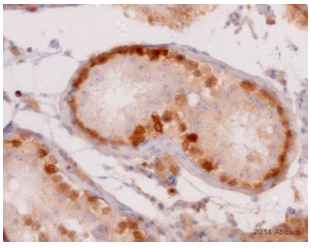


Flow Cytometry (Intracellular) - Anti-Hsp90 antibody [AC88] (ab13492)

Hsp90 Flow Cytometry (Intracellular) staining using mouse Anti-Hsp90 antibody

Overlay histogram showing HeLa cells stained with ab13492 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum (ab7481) / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab13492, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

This image was generated using the ascites version of the product.

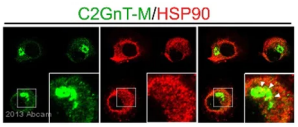


This image is courtesy of a customer review submitted by Rudolf Jung

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp90 antibody [AC88] (ab13492)

Hsp90 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Hsp90 antibody

ab13492 staining Hsp90 in Human testis tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a TRIS-EDTA Buffer. Samples were incubated with primary antibody (1/500) for 30 minutes at 20°C. A HRP-conjugated Goat anti-rabbit/mouse IgG polyclonal was used as the secondary antibody.
This image was generated using the ascites version of the product.

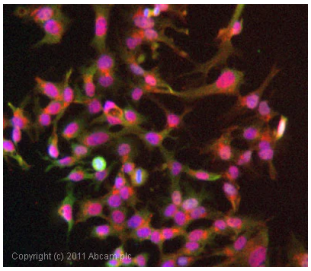


This image is courtesy of a customer review submitted by Armen Petrosyan

Immunocytochemistry/ Immunofluorescence - Anti-Hsp90 antibody [AC88] (ab13492)

Hsp90 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Hsp90 antibody

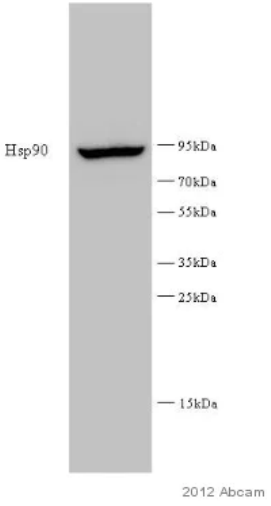
ab13492 staining Hsp90 (red) and another antibody to C2GnT-M (Golgi enzyme, greeen) in Panc-1 cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with PFA and blocked with 1% serum for 1 hour at 22°C. Samples were incubated with primary antibody (1/50 1% Donkey serum in PBST) for 1 hour at 22°C. An undiluted DyLight® 594-conjugated Donkey anti-mouse IgG polyclonal was used as the secondary antibody.
This image was generated using the ascites version of the product.



Immunocytochemistry/ Immunofluorescence - Anti-Hsp90 antibody [AC88] (ab13492)

Hsp90 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Hsp90 antibody

ICC/IF image of ab13492 stained HepG2 cells (ab7900). The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab13492, 5µg/ml) overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti-mouse IgG - H&L, pre-adsorbed (ab96879) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.
This image was generated using the ascites version of the product.



This image is courtesy of an anonymous customer review

Western blot - Anti-Hsp90 antibody [AC88] (ab13492)

Hsp90 Western blot staining of Human fibroblast whole cell lysate using mouse Anti-Hsp90 antibody

Blocked with 5% Milk for 2 hours at 22°C
This image was generated using the ascites version of the product.

All lanes:
Western blot - Anti-Hsp90 antibody [AC88] (ab13492) at 1/1000 dilution

All lanes:
Human fibroblast whole cell lysate at 40 µg

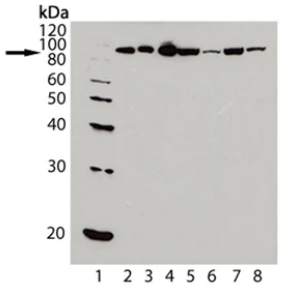
Secondary

All lanes:
HRP-conjugated goat anti-mouse polyclonal IgG at 1/2000 dilution

Developed using the ECL technique.

Predicted band size: 85 kDa

Exposure time: 20s



Western blot - Anti-Hsp90 antibody [AC88] (ab13492)

This image was generated using the ascites version of the product.
All lanes:
Western blot - Anti-Hsp90 antibody [AC88] (ab13492) at 1/1000 dilution

Lane 2:
HSP90 cell lysate

Lane 3:
HSP90β cell lysate

Lane 4:
HSP90α cell lysate

Lane 5:
HeLa (heat shocked) cell lysate

Lane 6:
NIH/3T3 (Heat shocked) cell lysate

Lanes 7 - 8:
PC-12 (Heat shocked) cell lysate

Predicted band size: 85 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.