

## Basic Information

<b>Product Name</b>	Anti-Hsp90 alpha/HSP90AA1 Antibody	
<b>Gene Name</b>	HSP90AA1	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Polyclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	IHC, WB, ICC/IF, FCM	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E.coli-derived human Hsp90 recombinant protein (Position: P2-V365). Human Hsp90 shares 99% amino acid (aa) sequence identity with both mouse and rat Hsp90.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Immunogen affinity purified.	
<b>Observed MW</b>	85-100 kDa	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	(Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

Heat shock protein HSP 90-alpha is a protein that in humans is encoded by the HSP90AA1 gene. The gene, HSP90AA1, encodes the human stress-inducible 90-kDa heat shock protein alpha (Hsp90A). Complemented by the constitutively expressed paralog Hsp90B which shares over 85% amino acid sequence identity, Hsp90A expression is initiated when a cell experiences proteotoxic stress. Once expressed Hsp90A dimers operate as molecular chaperones that bind and fold other proteins into their functional 3-dimensional structures. This molecular chaperoning ability of Hsp90A is driven by a cycle of structural rearrangements fueled by ATP hydrolysis. Current research on Hsp90A focuses in its role as a drug target due to its interaction with a large

number of tumor promoting proteins and its role in cellular stress adaptation.

## Reference

Anti-Hsp90 alpha/HSP90AA1 Antibody被引用在7文献中。

## Selected Validation Data

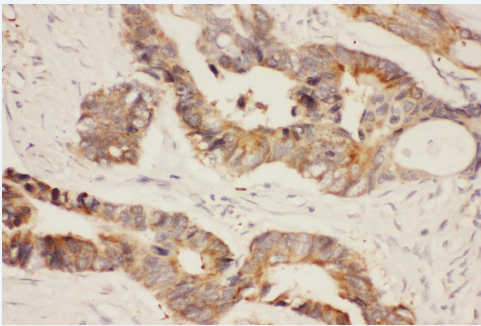


Figure 1. IHC analysis of Hsp90 alpha/HSP90AA1 using anti-Hsp90 alpha/HSP90AA1 antibody (PB9089).

Hsp90 alpha/HSP90AA1 was detected in a paraffin-embedded section of human intestinal cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-Hsp90 alpha/HSP90AA1 Antibody (PB9089) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1022) as the chromogen.

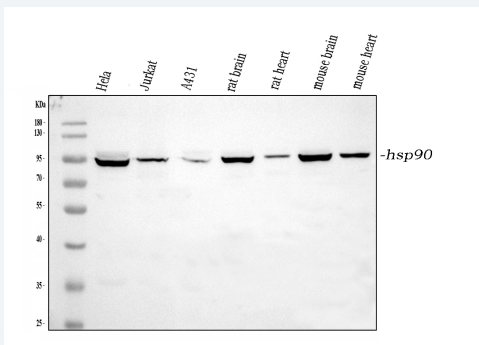


Figure 6. Western blot analysis of Hsp90 alpha/HSP90AA1 using anti-Hsp90 alpha/HSP90AA1 antibody (PB9089). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: HeLa whole cell lysates,  
Lane 2: Jurkat whole cell lysates,  
Lane 3: A431 whole cell lysates,  
Lane 4: rat brain tissue lysates,  
Lane 5: rat heart tissue lysates,  
Lane 6: mouse brain tissue lysates,  
Lane 7: mouse heart tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Hsp90 alpha/HSP90AA1 antigen affinity purified polyclonal antibody (PB9089) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Hsp90 alpha/HSP90AA1 at approximately 85-100

kDa. The expected band size for Hsp90 alpha/HSP90AA1 is at 85 kDa.

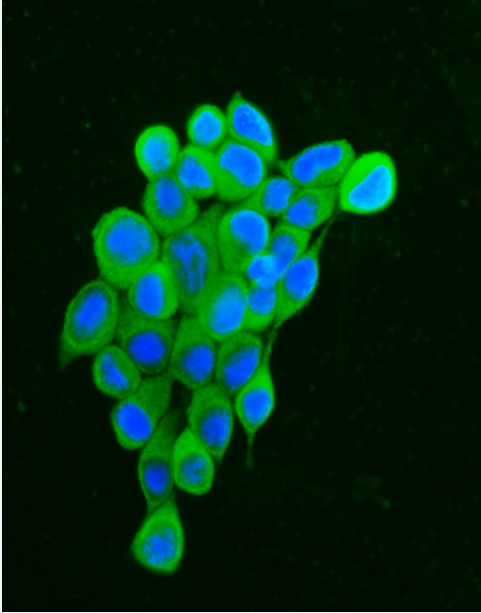


Figure 7. IF analysis of Hsp90 alpha/HSP90AA1 using anti-Hsp90 alpha/HSP90AA1 antibody (PB9089).

Hsp90 alpha/HSP90AA1 was detected in an immunocytochemical section of MCF-7 cells. The section was incubated with rabbit anti-Hsp90 alpha/HSP90AA1 Antibody (PB9089) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).

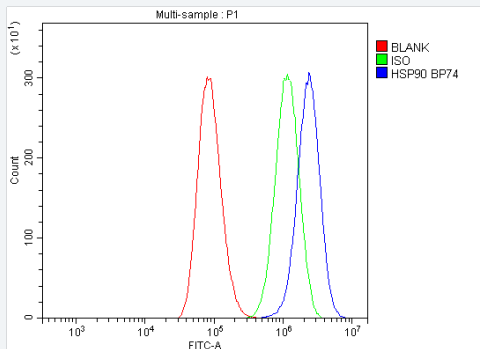


Figure 8. Flow Cytometry analysis of A549 cells using anti-Hsp90 alpha/HSP90AA1 antibody (PB9089).

Overlay histogram showing A549 cells stained with PB9089 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Hsp90 alpha/HSP90AA1 Antibody (PB9089) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.