Rabbit Hsp90 alpha Polyclonal Antibody | anti-Hsp90alpha antibody

Phospho-Hsp90 alpha (Thr5/Thr7) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31325	**Rabbit**	**Human, Mouse, Rat**	**Immunohistochemistry, ELISA**

PRODUCT SYNONYMS

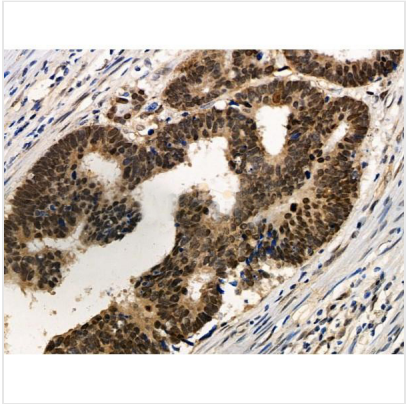
Hsp90 alpha; Polyclonal Antibody; Phospho-Hsp90 alpha (Thr5/Thr7) Antibody; EL52; epididymis luminal secretory protein 52; Heat shock 86kDa; heat shock 90kD protein 1; alpha; Heat shock 90kD protein 1; alpha like 4; heat shock 90kD protein; alpha-like 4; Heat shock 90kDa protein 1 alpha; Heat shock protein 90kDa alpha (cytosolic) class A member 1; Heat shock protein HSP 90-alpha; HS90A_HUMAN; HSP 86; HSP86; Hsp89; HSP89A; Hsp90; HSP90A; HSP90AA1; HSP90ALPHA; HSP90N; HSPC1; HSPCA; HSPCAL1; HSPCAL4; HSPN; LAP 2; LAP2; lipopolysaccharide-associated protein 2; LPS-associated protein 2; Renal carcinoma antigen NY-REN-38; anti-Hsp90alpha antibody

PRODUCT SPECIFICATIONS

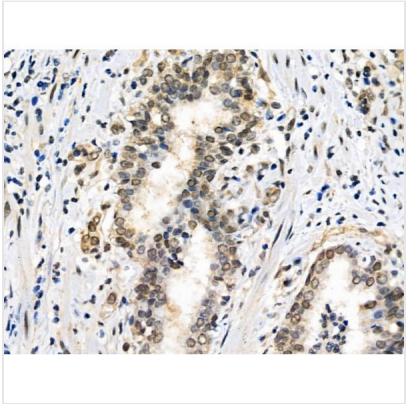
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-Hsp90 alpha (Thr5/Thr7) Antibody detects endogenous levels of Hsp90 alpha only when phosphorylated at Thr5/7.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-Hsp90alpha antibody	IHC (Immunohistochemistry), ELISA (Peptide ELISA)
Application Notes	IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human Hsp90 alpha around the phosphorylation site of Thr5/7.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	ISGylated. S-nitrosylated; negatively regulates the ATPase activity and the activation of eNOS by HSP90AA1.Ubiquitinated via 'Lys-63'-linked polyubiquitination by HECTD1. Ubiquitination promotes translocation into the cytoplasm away from the membrane and secretory pathways.

Subunit Structure	Homodimer. Identified in NR3C1/GCR steroid receptor-chaperone complexes formed at least by NR3C1, HSP90AA1 and a variety of proteins containing TPR repeats such as FKBP4, FKBP5, PPID, PPP5C or STIP1. Forms a complex containing HSP90AA1, TSC1 and TSC2; TSC1 is required to recruit TCS2 to the complex. The closed form interacts (via the middle domain and TPR repeat-binding motif) with co-chaperone TSC1 (via C-terminus). Interacts with TOM34. Interacts with TERT; the interaction, together with PTGES3, is required for correct assembly and stabilization of the TERT holoenzyme complex. Interacts with CHORDC1 and DNAJC7. Interacts with STUB1 and UBE2N; may couple the chaperone and ubiquitination systems. Interacts (via TPR repeat-binding motif) with PPP5C (via TPR repeats); the interaction is direct and activates PPP5C phosphatase activity. Following LPS binding, may form a complex with CXCR4, GDF5 and HSPA8. Interacts with KSR1. Interacts with co-chaperone CDC37 (via C-terminus); the interaction inhibits HSP90AA1 ATPase activity. May interact with NWD1. Interacts with FNIP1 and FNIP2; the interaction inhibits HSP90AA1 ATPase activity. Interacts with co-chaperone AHSA1 (phosphorylated on 'Tyr-223'); the interaction activates HSP90AA1 ATPase activity and results in the dissociation of TSC1 from HSP90AA1. Interacts with FLCN in the presence of FNIP1. Interacts with HSP70, STIP1 and PTGES3. Interacts with SMYD3; this interaction enhances SMYD3 histone-lysine N-methyltransferase. Interacts with SGTA (via TPR repeats). Interacts with TTC1 (via TPR repeats). Interacts with HSF1 in an ATP-dependent manner.. Interacts with MET; the interaction suppresses MET kinase activity. Interacts with ERBB2 in an ATP-dependent manner; the interaction suppresses ERBB2 kinase activity. Interacts with HIF1A, KEAP1 and RHOBTB2. Interacts with HSF1; this interaction is decreased in a IER5-dependent manner, promoting HSF1 accumulation in the nucleus, homotrimerization and DNA-binding activities. Interacts with STUB1 and SMAD3. Interacts with HSP90AB1; interaction is constitutive. Interacts with HECTD1 (via N-terminus) (By similarity). Interacts with NR3C1 (via domain NR LBD) and NR1D1 (via domain NR LBD) (By similarity). Interacts with NLPR12. Interacts with PDCL3 (By similarity). (Microbial infection) Interacts with herpes simplex virus 1 protein US11; this interaction inhibits TBK1-induced interferon production.
Similarity	The TPR repeat-binding motif mediates interaction with TPR repeat-containing proteins like the co-chaperone STUB1.Belongs to the heat shock protein 90 family.
Subcellular Location	Nucleus. Cytoplasm. Melanosome. Cell membrane. Note: Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistchemistry)
At 1/100 staining Human colorectal cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



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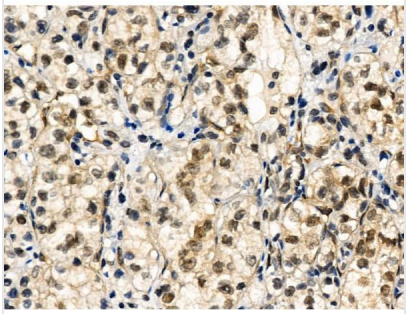
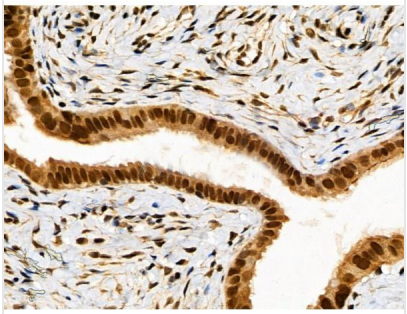
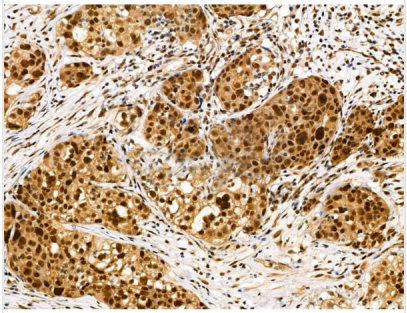


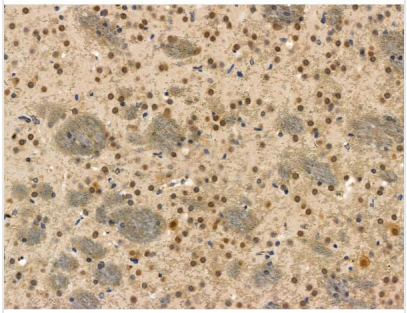
IHC (Immunohistochemistry)
At 1/100 staining Human kidney cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistchemistry)
At 1/100 staining Human ovarian cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human ovarian cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-Hsp90alpha antibody	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 which is essential for its chaperone 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. 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. 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. Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes. Antagonizes STUB1-mediated inhibition of TGF-beta signaling via inhibition of STUB1-mediated SMAD3 ubiquitination and degradation.

NCBI AND UNIPROT INFORMATION

NCBI GI #	153792590
NCBI GeneID	3320
NCBI Accession #	NP_001017963.2
NCBI GenBank Nucleotide #	NM_001017963.2
UniProt Accession #	P07900; Q2PP14; Q5CAQ6; Q5CAQ7; Q9BVQ5; A8K500; B3KPJ9
Molecular Weight	84,660 Da
NCBI Official Full Name	heat shock protein HSP 90-alpha isoform 1
NCBI Official Synonym Full Names	heat shock protein 90kDa alpha (cytosolic), class A member 1
NCBI Official Symbol	HSP90AA1
NCBI Official Synonym Symbols	EL52; HSPN; LAP2; HSP86; HSPC1; HSPCA; Hsp89; Hsp90; HSP89A; HSP90A; HSP90N; HSPCAL1; HSPCAL4
NCBI Protein Information	heat shock protein HSP 90-alpha; HSP 86; heat shock 86 kDa; heat shock 90kD protein 1, alpha; heat shock 90kDa protein 1, alpha; renal carcinoma antigen NY-REN-38; heat shock 90kD protein, alpha-like 4; epididymis luminal secretory protein 52; heat shock
UniProt Protein Name	Heat shock protein HSP 90-alpha
UniProt Gene Name	**HSP90AA1**
UniProt Synonym Gene Names	HSP90A; HSPC1; HSPCA; HSP 86; HSP86
UniProt Entry Name	HS90A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/polyclonal/hsp90-alpha-antibody-immunohistochemistry-peptide-elisa-elisa/31325