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Anti-Hsp90 Alpha Picoband Antibody

Catalog # ABO11798

Product Information

Application	WB, IHC-P, ICC
Primary Accession	P07900
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Heat shock protein HSP 90-alpha(HSP90AA1) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3320
Other Names	Heat shock protein HSP 90-alpha, Heat shock 86 kDa, HSP 86, HSP86, Lipopolysaccharide-associated protein 2, LAP-2, LPS-associated protein 2, Renal carcinoma antigen NY-REN-38, HSP90AA1, HSP90A, HSPC1, HSPCA
Calculated MW	84660
Application Details	Immunocytochemistry , 0.5-1 □g/ml, Human, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Cytoplasm. Melanosome. Cell membrane. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Source	Eukaryota
Protein Name	Heat shock protein HSP 90-alpha
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human Hsp90 alpha recombinant protein (Position: P2-V365). Human Hsp90 alpha shares 99% amino acid (aa) sequence identity with both mouse and rat Hsp90 alpha.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

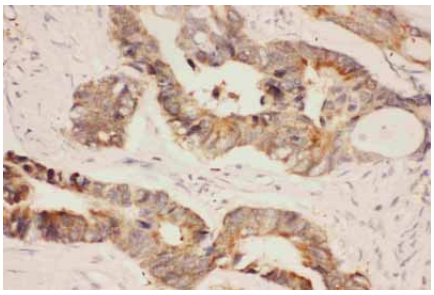
Name	HSP90AA1 (HGNC:5253)
Synonyms	HSP90A, HSPC1, HSPCA
Function	Molecular chaperone that promotes the maturation, structural maintenance and proper regulation of specific target proteins involved for instance in cell cycle control and signal transduction. Undergoes a functional cycle that is linked 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 (PubMed:11274138, PubMed:12526792, PubMed:15577939, PubMed:15937123, PubMed:27353360, PubMed:29127155). 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 (PubMed:29127155). 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). Plays a critical role in mitochondrial import, delivers preproteins to the mitochondrial import receptor TOMM70 (PubMed:12526792). 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 (PubMed:25973397). In the first place, they alter the steady-state levels of certain transcription factors in response to various physiological cues (PubMed:25973397). 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 (PubMed:25973397). Third, they participate in the eviction of histones from the promoter region of certain genes and thereby turn on gene expression (PubMed:25973397). Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes (PubMed:11276205). Antagonizes STUB1-mediated inhibition of TGF-beta signaling via inhibition of STUB1-mediated SMAD3 ubiquitination and degradation (PubMed:24613385). Mediates the association of TOMM70 with IRF3 or TBK1 in mitochondrial outer membrane which promotes host antiviral response (PubMed:20628368, PubMed:25609812).
Cellular Location	Nucleus {ECO:0000250|UniProtKB:P07901}. Cytoplasm {ECO:0000250|UniProtKB:P07901}. Melanosome. Cell membrane. Mitochondrion. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

Background

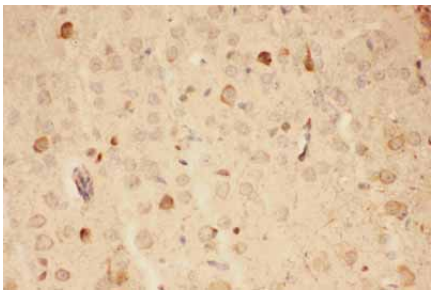
Heat shock protein HSP 90-alpha is a protein that in humans is encoded by the HSP90AA1 gene. The gene, HSP90AA1, encodes the human stress-inducible 90-kDa heat shock protein alpha (Hsp90A). Complemented by the constitutively expressed paralog Hsp90B which shares over 85% amino acid sequence identity, 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.

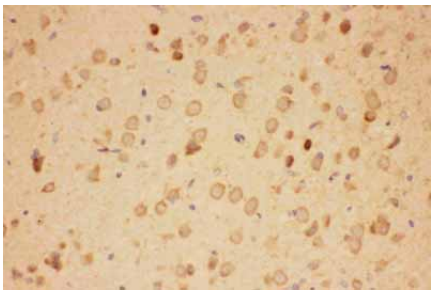
Images



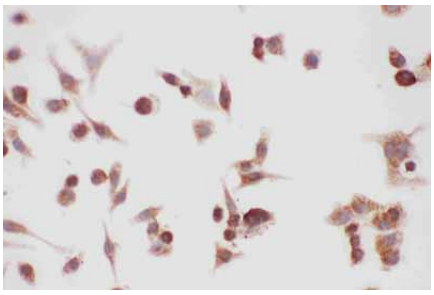
Anti-Hsp90-alpha-Picoband antibody, ABO11798-1.JPGIHC(P): Human Intestinal Cancer Tissue



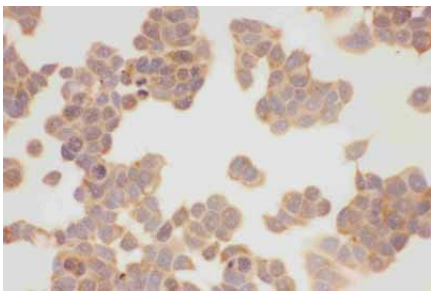
Anti-Hsp90-alpha-Picoband antibody, ABO11798-2.JPGIHC(P): Mouse Brain Tissue



Anti-Hsp90-alpha-Picoband antibody, ABO11798-3.JPGIHC(P): Rat Brain Tissue

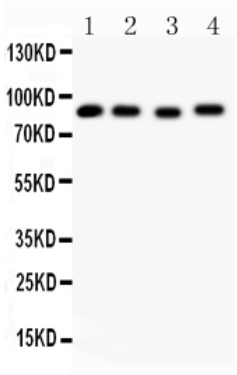


Anti-Hsp90-alpha-Picoband antibody, ABO11798-4.JPGICC: A549 Cell



Anti-Hsp90-alpha-Picoband antibody, ABO11798-5.JPGICC : MCF-7 Cell

Anti-Hsp90-alpha-Picoband antibody, ABO11798-6.jpgAll lanes: Anti-HSP90(ABO11798) at 0.5ug/mlLane 1: Rat Liver



Tissue Lysate at 40ugLane 2: Hela Whole Cell Lysate at 40ugLane 3: MCF-7 Whole Cell Lysate at 40ugLane 4: Raji Whole Cell Lysate at 40ugPredicted bind size: 83KDObserved bind size: 83KD

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