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# Anti-HSP90AA1 / Hsp90 Alpha A1 Antibody (aa275-484, clone 5G5)

Mouse Anti Human Monoclonal Antibody
Catalog # ALS18275

## Product Information

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| **Application** | WB, IHC-P, E, FC |
| **Primary Accession** | P07900 |
| **Predicted** | Human, Mouse, Monkey |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | IgG1 |
| **Clone Names** | 5G5 |
| **Calculated MW** | 84660 |
| **Concentration (mg/ml)** | 1 mg/ml |

## Additional Information

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|---|---|
| **Gene ID** | 3320 |
| **Alias Symbol** | HSP90AA1 |
| **Other Names** | HSP90AA1, EL52, HSP86, Hsp89, HSP89A, HSPC1, Heat shock 86 kDa, Hsp90, HSP90A, HSP90N, HSPCA, HSPCAL4, HSPN, LAP2, HSP 86, HSPCAL1 |
| **Target/Specificity** | Human HSP90 |
| **Reconstitution & Storage** | Purified |
| **Precautions** | Anti-HSP90AA1 / Hsp90 Alpha A1 Antibody (aa275-484, clone 5G5) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **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

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