

Product datasheet for **TA326369**

HSP90AA1 Mouse Monoclonal Antibody [Clone ID: 4F3.E8]

Product data:

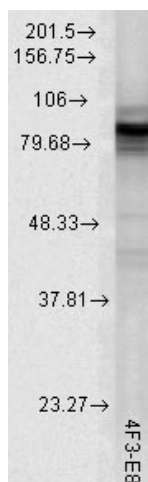
Product Type:	Primary Antibodies
Clone Name:	4F3.E8
Applications:	IF, WB
Recommended Dilution:	WB: 1:2000
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant Human Hsp90 purified from E.coli
Formulation:	PBS pH7.2, 50% glycerol
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	heat shock protein 90kDa alpha family class A member 1
Database Link:	NP_001017963 Entrez Gene 15519 Mouse Entrez Gene 299331 Rat Entrez Gene 3320 Human P07900



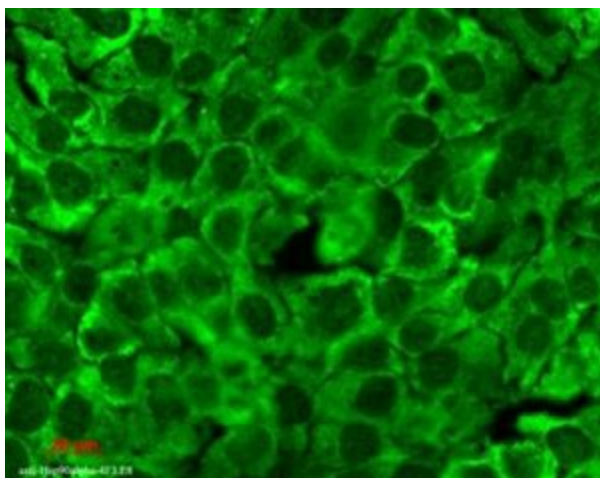
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Background:	<p>HSP90 is an abundantly and ubiquitously expressed heat shock protein. It is understood to exist in two principal forms and , which share 85% sequence amino acid homology. The two isoforms of Hsp90 are expressed in the cytosolic compartment . Despite the similarities, HSP90 exists predominantly as a homodimer while HSP90 exists mainly as a monomer. From a functional perspective, hsp90 participates in the folding, assembly, maturation, and stabilization of specific proteins as an integral component of a chaperone complex. Furthermore, Hsp90 is highly conserved between species; having 60% and 78% amino acid similarity between mammalian and the corresponding yeast and Drosophila proteins, respectively. Hsp90 is a highly conserved and essential stress protein that is expressed in all eukaryotic cells. Despite its label of being a heat-shock protein, hsp90 is one of the most highly expressed proteins in unstressed cells (12% of cytosolic protein). It carries out a number of housekeeping functions including controlling the activity, turnover, and trafficking of a variety of proteins. Most of the hsp90-regulated proteins that have been discovered to date are involved in cell signaling . The number of proteins now know to interact with Hsp90 is about 100. Target proteins include the kinases v-Src, Wee1, and c-Raf, transcriptional regulators such as p53 and steroid receptors, and the polymerases of the hepatitis B virus and telomerase.⁵ When bound to ATP, Hsp90 interacts with co-chaperones Cdc37, p23, and an assortment of immunophilin-like proteins, forming a complex that stabilizes and protects target proteins from proteasomal degradation. In most cases, hsp90-interacting proteins have been shown to co-precipitate with hsp90 when carrying out immunoadsorption studies, and to exist in cytosolic heterocomplexes with it. In a number of cases, variations in hsp90 expression or hsp90 mutation has been shown to degrade signaling function via the protein or to impair a specific function of the protein (such as steroid binding, kinase activity) in vivo. Ansamycin antibiotics, such as geldanamycin and radicicol, inhibit hsp90 function .</p>
Synonyms:	EL52; HSP86; Hsp89; HSP89A; Hsp90; HSP90A; HSP90N; HSPC1; HSPCA; HSPCAL1; HSPCAL4; HSPN; LAP-2; LAP2
Note:	This antibody detects both α and β forms of Hsp90 equally well.
Protein Families:	Druggable Genome
Protein Pathways:	Antigen processing and presentation, NOD-like receptor signaling pathway, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer

Product images:



Western blot analysis of Hsp90Total in rat tissues, using a 1:1000 dilution of the antibody



Hsp90 Total visualized using the antibody