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Datasheet for 209-301-F71

# HSP90 beta Antibody

## Overview

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| **Description:** | Anti-HSP90 beta (MOUSE) Monoclonal Antibody - 209-301-F71 |
| **Item No.:** | 209-301-F71 |
| **Size:** | 100 µg |
| **Applications:** | ELISA, IHC, IP, WB |
| **Reactivity:** | Human, Mouse |
| **Host Species:** | Mouse |

## Product Details

**Background:**

HSP90 is an abundantly and ubiquitously expressed heat shock protein. It is understood to exist in two principal forms α and β, which share 85% sequence amino acid homology. The two isoforms of Hsp90 are expressed in the cytosolic compartment. Despite the similarities, HSP90α exists predominantly as a homodimer while HSP90β 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 (1–2% 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. 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.

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| **Synonyms:** | mouse anti-Anti-Hsp90 beta, mouse anti-Anti-Hsp90b, mouse anti-heat shock protein 90 beta, Hsp84, Hsp90, Hsp90 beta, Hsp90B, HspC2, HSPCB, Heat shock protein HSP 90-beta, HSP 90, Heat shock 84 kDa, HSP 84, HSP84, HSP90AB1, HSP90B, HSPC2, HSPCB, HSP90ß |
| **Host Species:** | Mouse |
| **Clonality:** | Monoclonal |
| **Clone ID:** | Hyb-K3701 |
| **Format:** | IgM |

## Target Details

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| **Gene Name:** | HSP90AB1 |
| **Reactivity:** | Human, Mouse |
| **Immunogen Type:** | Other |
| **Immunogen:** | Hsp90 beta Antibody was produced in mice by repeated immunizations raised against recombinant human Hsp90beta. |
| **Purity/Specificity:** | Anti-Hsp90β Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with Hsp90β from Human (beta specific) based on 100% homology with the immunizing sequence. Cross-reactivity with Hsp90β from other sources has not been determined. Heat Shock research. |
| **Relevant Links:** | • NCBI - NP_031381.2<br>• GeneID - 3326<br>• UniProtKB - P08238 |

## Application Details

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| **Tested Applications:** | ELISA, IHC, IP, WB |
| **Application Note:** | Anti-Hsp90β Antibody is tested for W, and IHC. Expect a band approximately 90kD proteins corresponding to the molecular mass of hsp90β on SDS Page immunoblots. Specific conditions for reactivity should be optimized by the end user. |
| **Assay Dilutions:** | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| **ELISA:** | 1:200 |
| **IHC:** | 1:3000 |
| **WB:** | 1µg/ml |

## Formulation

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| **Physical State:** | Liquid (sterile filtered) |
| **Concentration:** | 1.0 mg/mL by UV absorbance at 280 nm |
| **Buffer:** | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| **Preservative:** | 0.09% (w/v) Sodium Azide |
| **Stabilizer:** | 50% (v/v) Glycerol |

## Shipping & Handling

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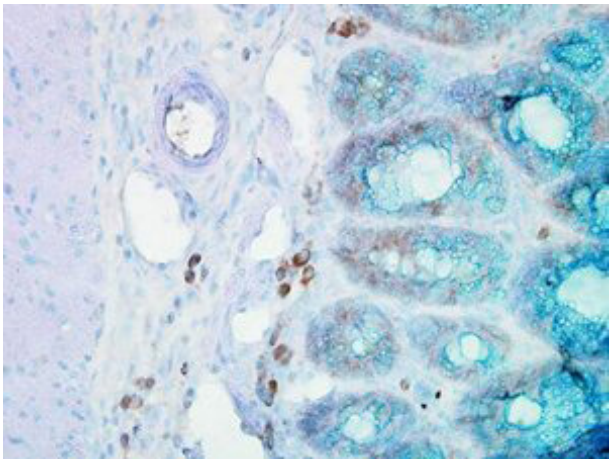
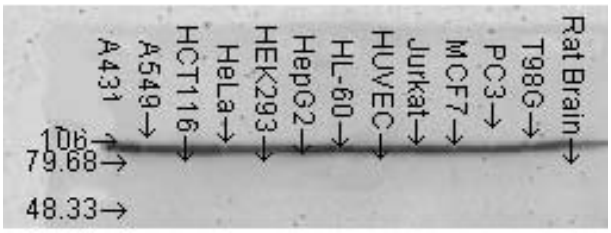
| **Shipping Condition:** | Dry Ice |
| **Storage Condition:** | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| **Expiration:** | Expiration date is one (1) year from date of receipt. |

## Images



**Immunohistochemistry**
Immunohistochemistry of mouse anti-Hsp90 beta antibody. Tissue: inflammatory cells in mouse colon tissues. Primary Antibody: Hsp90 beta antibody at 1µg/mL for 1h at RT. Secondary antibody: Peroxidase mouse secondary at 1:10,000 for 45 min at RT. Localization: Cytoplasm. Staining: Hsp90ß as brown signal.




**Western Blot**

Western Blot of mouse anti-Hsp90 beta antibody. Lane 1: A431. Lane 2: A549. Lane 3: HCT116. Lane 4: HeLa. Lane 5: HEK293. Lane 6: HepG2. Lane 7: HL-60. Lane 8: HUVEC. Lane 9: Jurkat. Lane 10: MCF7. Lane 11: PC3. Lane 12: T98G. Lane 13: Rat Brain. Load: 10 µg per lane. Primary antibody: Hsp90 beta antibody at 1:1000 for overnight at 4°C. Secondary antibody: IRDye800™ mouse secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 83.3 kDa/~105 for Hsp90 beta. Other band(s): none.

## Disclaimer

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