

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human HSP90 (α and β) in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human HSP90β Met1-Asp724 Accession # P08238
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 μg/mL	See Below
Simple Western	5 μg/mL	See Below

DATA

Western Blot

Detection of Human HSP90 by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line, Raji human Burkitt's lymphoma cell line, HeLa human cervical epithelial carcinoma cell line, and SH-SY5Y human neuroblastoma cell line. PVDF membrane was probed with 0.5 μg/mL Goat Anti-Human HSP90 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3286) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). For additional reference, recombinant human HSP90α and HSP90β (5 ng/lane) were included. A specific band for HSP90 was detected at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Simple Western

Detection of Human HSP90 by Simple Western™. Simple Western lane view shows lysates of Jurkat human acute T cell leukemia cell line and Raji human Burkitt's lymphoma cell line, loaded at 0.2 mg/mL. A specific band was detected for HSP90 at approximately 93 kDa (as indicated) using 5 μg/mL of Goat Anti-Human HSP90 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3286) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The heat shock protein-90 kDa (HSP90) is a composite name for a large group of genes whose molecular weights average 90 kDa. HSP90 functions primarily as a molecular chaperone, facilitating the folding of other cellular proteins, preventing protein aggregation, or targeting improperly folded proteins to specific degradative pathways. HSP90 is ubiquitously expressed, highly conserved and accounts for 1-2% of the total cellular protein. Recently introduced, standardized nomenclature has divided the 17 identified HSP90 genes into three related and one unrelated classes, HSP90aa, HSP90AB, HSP90BB, and TRAP, respectively. Six of these genes were functional while the remaining 11 are considered putative pseudogenes. Eukaryotic cells have two principal isoforms of HSP90. The antibody described here is to HSP90AB1-isoform 1, a 724 amino acid protein that is constitutively expressed. HSP90AB1-1 is also known as HSP90β, HSP90B, HSPCB, HSPC2, and HSP89β. The inducible form, HSP90AA1, is a 737 amino acid protein also known as HSP90α, HSP90A, HSPC1, HSPCA, HSP89α and LAP2. HSP90AB1-1 and HSP90AA are share 90% identity. In addition to its role as a molecular chaperone and stress response protein, HSP90 is a central component in a number of basic cellular processes including hormone signaling and cell cycle control.

