

Datasheet for ABIN1686706 **HSP90 Protein (partial)**

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Overview

Quantity:	100 µg
Target:	HSP90
Protein Characteristics:	partial
Origin:	Plasmodium falciparum
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	QPVLEINPNH FIIKQLNHLI QIDKMNLQNS EIAEQIFDVA SMQGGYTIDD TGLFAKRVIG MMEKNAEQYL MNVQSNISNN TLNNNTSGSE MPQNNSPNEL QSEMKSTNGI DDNSNISENK INESSSNQNN IGENSIAEEN NIKNIAESDV NKINLGENDV SQNTMHKQDS GLFNLDPSIL NSNMLSGSDK TLL
Specificity:	~21.4 kDa
Purification:	Affinity Purified
Purity:	>90%

Target Details

Target:	HSP90
Alternative Name:	Hsp90 (HSP90 Products)
Background:	HSP90 is an abundantly and ubiquitously expressed heat shock protein. It is understood to exist

in two principal forms alpha and beta, which share 85 % sequence amino acid homology. The two isoforms of HSP90 are expressed in the cytosolic compartment (1). Despite the similarities, HSP90alpha exists predominantly as a homodimer while HSP90beta exists mainly as a monomer (2). From a functional perspective, HSP90 participates in the folding, assembly, maturation, and stabilization of specific proteins as an integral component of a chaperone complex (3-6). 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 (7-8). The number of proteins now known 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 immune adsorption 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 (9). Recently, Prof. Tatu's laboratory has shown the importance of HSP90 in parasite growth. They have shown that inhibition of P. Falciparum HSP90 (PfHSP90), blocks the erythrocytic cycle by inhibiting stage transformation, leading to inhibition of parasite growth (10, 11). Looking for more information on HSP90? Visit our new HSP90 Scientific Resource Guide at <http://www.HSP90.ca>.

Molecular Weight:	approx. 23.4 kDa
Gene ID:	811999
NCBI Accession:	XP_001348591
UniProt:	Q8IL32
Pathways:	M Phase , Regulation of Cell Size , Signaling Events mediated by VEGFR1 and VEGFR2 , VEGFR1 Specific Signals

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	This product has been certified >90% pure using SDS-PAGE analysis.
Restrictions:	For Research Use only

Handling

Concentration:	Lot specific
Buffer:	50 mM Tris/HCl pH 7.5, 300 mM NaCl, 10 % glycerol
Storage:	-20 °C