



HSP70 Monoclonal Antibody

E91507

Catalog Number: E91507**Amount:** 100ul

Background: HSP70 and HSP90 are molecular chaperones expressed constitutively under normal conditions to maintain protein homeostasis and are induced upon environmental stress (1). Both HSP70 and HSP90 are able to interact with unfolded proteins to prevent irreversible aggregation and catalyze the refolding of their substrates in an ATP- and co-chaperone-dependent manner (1). HSP70 has a broad range of substrates including newly synthesized and denatured proteins, while HSP90 tends to have a more limited subset of substrates, most of which are signaling molecules. HSP70 and HSP90 often function collaboratively in a multi-chaperone system, which requires a minimal set of co-chaperones: HSP40, Hop, and p23 (2,3). The co-chaperones either regulate the intrinsic ATPase activity of the chaperones or recruit chaperones to specific substrates or subcellular compartments (1,4). When the ubiquitin ligase CHIP associates with the HSP70/HSP90 complex as a cofactor, the unfolded substrates are subjected to degradation by the proteasome (4). The biological functions of HSP70/HSP90 extend beyond their chaperone activity. They are essential for the maturation and inactivation of nuclear hormones and other signaling molecules (1,3). They also play a role in vesicle formation and protein trafficking (2).

Species: Mouse**Isotype:** IgG

Storage/Stability: Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Synonyms: HSP72; HSPA1; HSP70I; HSP70-1; HSP70-1A;HSPA1A

Immunogen: N term –peptideof human HSP70

Purification: Affinity purification

Reactivity: H M R

Applications: WB

Molecular Weight: 70kDa

Swiss-Prot No. : P08107

Gene ID: 3303

References: 1. Nollen, E.A. and Morimoto, R.I. (2002) J. Cell Sci. 115, 2809-2816. 2. Young, J.C. et al. (2003) Trends Biochem. Sci. 28, 541-547. 3. Pratt, W.B. and Toft, D.O. (2003) Exp. Biol. Med. 228, 111-133. 4. Hohfeld, J. et al. (2001) EMBO Rep. 2, 885-890.

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